BENGAL
DISTRICT
GAZETTEERS
BALASORE

PLAN OF CONTENTS.

TABLE OF CONTENTS.

CHAPTER I.

PHYSICAL ASPECTS.

PAGES

CHAPTER II.

HISTORY.

CHAPTER III.

THE PEOPLE.

CHAPTER IV.

PUBLIC HEALTH.

CHAPTER V.

AGRICULTURE.

CHAPTER VI.

NATURAL CALAMITIES.

CHAPTER VII.

CANALS AND EMBANKMENTS.

CHAPTER VIII.

RENTS, WAGES AND PRICES.

CHAPTER IX.

OCCUPATIONS, MANUFACTURES AND TRADE.

CHAPTER X.

MEANS OF COMMUNICATION.

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

CHAPTER XII.

GENERAL ADMINISTRATION.

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

CHAPTER XIV.

EDUCATION.

CHAPTER XV.

GAZETTEER.

GAZETTEER

OF THE

BALASORE DISTRICT.

CHAPTER I.

PHYSICAL ASPECTS.

GENERAL DESCRIPTION. BALASORE, the northern district of the Orissa Commissionership or Division, is situated between 20° 44′ and 21° 57′ north latitude, and between 86° 16′ and 87° 29′ east longitude. It contains an area, according to the latest survey, of 2,085 square miles, and a population, as ascertained by the census of 1901, of 1,071,197 souls. The principal town, which is also the administrative headquarters of the district, is Balasore, situated on the western bank of Burābalang river. The name is said to be a corruption of Baneswar, and to be derived from a temple in the town dedicated to Mahādeo Baneswar, *i.e.*, Siva, the Lord of the Forest, a title which points to the time when the populous town of Balasore and the surrounding country were covered by virgin forest.

Boundaries. The district is bounded on the north by the district of Midnapore and the Tributary State of Mayūrbhanj; on the east by the Bay of Bengal; on the south by the district of Cuttack, from which it is separated by the river Baitaranī; and on the west by the wooded hills of Keonjhar, Mayūrbhanj and Nīlgiri.

Configuration. It consists of a long strip of alluvial land between the hills and the sea, somewhat like an hour-glass in shape, very narrow in the centre, but growing broader towards the north and south. This tract varies in breadth from about 30 miles at the north-eastern extremity to 10 miles at the narrowest or central portion and 40 miles in the south. The district, thus hemmed in by a surf-beaten coast on one side and a barrier of hills on the other, comprises three belts of country extending from north to south

recede from it. The first is a narrow maritime strip of land, in many places impregnated with salt and unfit for cultivation, which has been formed by the silt-laden rivers debouching from the hills and the sand-burdened currents of the Bay. The second is the delta proper, an alluvial plain teeming with inhabitants and covered with great stretches of rice, which constitutes the greater part of the district. The third belt consists of the western borderland, running along the foot of the hills and bordering on the Garhjāts, an undulating tract which gradually ascends into the wooded glens and hills of the Tributary States.

Natural divisions.

Balasore is thus naturally divided into three well-defined tracts—the salt tract along the coast, the arable tract or rice country, and the submontane tract or jungle land. These three tracts appear as if they had been divided off artificially from each other by the Coast Canal, Trunk Road and railway line respectively.

The salt tract.

The salt tract runs the whole way down the coast, and forms a narrow strip, from 2 to 6 miles broad, traversed by sluggish brackish streams creeping along between banks of black mud. Towards the beach this desolate region rises into sandy ridges, from 50 to 80 feet high, sloping inland and covered with a growth of scrubby vegetation seldom or never rising above the height of a man; on the verge of the ocean are sandhills clothed with creepers and wild convolvulus, on which deer and antelope love to feed. Further inland, the plain spreads out into prairies of coarse long grass and scrub jungle, throughout which there is scarcely a village, but only patches of rice cultivation and sparse groups of houses on the higher ridges, enclosed by palm, cocoa-nut and betel-nut groves. The low lands near these ridges are utilized for grazing purposes, but here and there certain portions have been brought under the plough. The western boundary is fringed with long lines of villages, from which every morning herds of cattle are driven to its saliferous plains to graze. This tract is purely alluvial; towards the coast, the soil has a distinctly saline taste, and salt manufacture used to be carried on to a considerable extent.

The arable tract.

The arable tract lies beyond the salt lands, and includes much the greater part of the district. It is a long dead level of rice fields, with a soil light in colour, friable, and apt to split up into small cubes. A noticeable feature of this region is the *pāts*, literally the "cups" or depressed lands near the river banks. They produce the finest crops, and are probably the sites of marshes that have partially silted up by the yearly overflow of the rivers. The arable tract is sparsely wooded except round the villages, which

are encircled by fine mango, *pīpal*, banyan, and tamarind trees, and intersected with green shady lanes of bamboo. A few palmyras, date palms and screw pines also dot the expanse, or run in lines between the fields.

The submontane tract is an undulating country with a red soil, much broken up into ravines along the foot of the hills. Masses of laterite, buried in hard ferruginous clay, crop up as rocks or slabs. At Kopâri about 2 square miles are almost paved with such slabs, dark red in colour, perfectly flat, and highly polished. Here the mountain torrents have scooped out for themselves picturesque ravines clothed with a dense, fresh verdure of prickly thorns, stunted gnarled shrubs, and here and there a noble forest tree. Large tracts are covered with *sāl* jungle, which nowhere, however, attains to any great height. Near the hills there are patches of cultivated land, and the soil is often of great fertility on account of the rich vegetable matter brought down by the mountain torrents. **The submontane tract.**

The district is watered by six distinct river systems, viz., proceeding from north to south, those of the Subarnarekhā, Pānchpāra, Burābalang, Jamkā, Kānsbāns and Baitaranī. During the hot weather the upper channels of these rivers dwindle to insignificant streams dotted here and there with stagnant pools; but in the rainy season they bring down an enormous mass of water from the hills in which they take their rise. They drain a large area, and the rapidity of the current acquired among the mountains sweeps down a vast quantity of silt in suspension. As soon, however, as the river leaves the broken hilly region for the level delta, its current is checked, and being unable to carry down the sand with which it is charged, it deposits it in its bed. By degrees, therefore, the channel becomes shallower, the bed is raised, and the river flows at a higher level than the surrounding country. The rivers and their various channels consequently become less and less able to carry off the water-supply to the sea, and frequently prove inadequate to furnish an outlet for the volume of water with which they are charged during the rainy season. The result is that, though in the cold and hot weather they are small streams winding through long expanses of sand, in the rains they are formidable torrents which often overflow their banks and flood the country far and wide. **RIVER SYSTEM.**

The following is a brief description of each of these principal rivers with their most important tributaries and offshoots.

The Subarnarekhā takes its rise 10 miles south-west of Rānchī in the Chotā Nāgpur plateau. It flows towards the north-east, leaving the main plateau in a picturesque waterfall, and then **The Subarnarekhā.**

forms the boundary with Hazāribāgh, its course being eastwards to the trijunction point with the Mānbhūm district. From this point the river bends southwards into Singhbhūm, then passes into the State of Mayūrbhanj, and afterwards enters Midnapore from the north-west. It traverses the jungle in the western part of this district till it reaches Balasore, through which it flows for 60 miles in a tortuous southern course, with great windings east and west, until it finally falls into the Bay of Bengal, in 21° 34′ N. and 87° 21′ E., after a course of 296 miles, during which it drains an area of 11,300 square miles. The river banks are high and steep on the outer curve of the bends, against which the water cuts, and flat or sloping on the inner. It has no tributaries within the district, except a small stream, the Guchidā, which joins it at Bhograi; and although studded by islands as old as our oldest maps, it has long ceased any operations of diluvion or alluvion on a large scale. The country along the banks is cultivated to within a few miles of the sea, where it enters the saline tract. The Subarnarekhā is nowhere fordable within the district during the rainy months, and it is liable to heavy floods, which inundate the surrounding country on either bank for a distance of about 4 miles, and have been known to penetrate 12 miles inland.

This river carried the early European trade in the Province from and to the port of Piplī, which was occupied by the Portuguese at the end of the 16th century. The silting up of the mouth of the Subarnarekhā during the next century led to the downfall of the port, of which no vestige now remains. The river is still, however, navigable by country craft as far as Kālikāpur about 16 miles from its mouth, up to which point it is tidal; 25 miles further up it is spanned by the railway bridge and the Orissa Trunk Road at Rājghāt. It communicates with the Coast Canal at Jāmkundā lock, and is largely used by country boats; small vessels can make their way up to the boundary of the district, and during the rains far into Mayūrbhanj. The name Subarnarekhā, which means a streak of gold, is said to be derived from the fertility of the land on either bank. Others, however, trace the origin of the name to the particles of gold occasionally found in its sandy bed.

The Pānchpāra. The intermediate country, on the south of the Subarnarekhā and north of the Burābalang, forms an elongated drainage basin running south-east from the trijunction of Midnapore, Dhalbhūm and Mayūrbhanj. It is watered by a number of small streams, of which the principal are the Jamirā, Bāns and Bhairingi, which unite, bifurcate and reunite, until the great river which they eventually form enters the sea under the name of the

Pānchpāra. This name, which means the five villages, was given to the river because there were once five villages at the spot where it enters the sea. The tide runs up only 10 miles; and although the interlacings of these streams constantly spread out into shallow swamps, one of them, the Bāns, is deep enough at certain parts of its course for the passage of boats of 100 maunds burden all the year round.

South of this network of rivers is the Burābalang, which rises among the Mayūrbhanj hills. After receiving two small tributaries, the Gangāhar and Sunai, it winds its way into the sea near Chandīpur after a course of 35 miles through the district. In the upper parts of its course the banks are sandy, steep and cultivated; in the lower part they are of firm mud, covered to high-water mark with black ooze and surrounded by jungle or open grassy plains. It is tidal, and brigs, sloops and small steamers can navigate its tortuous course as far as the town of Balasore, but the sand-bar across the mouth of the river renders the entrance difficult. It is liable to floods, but the area exposed to inundation, which lies to the north and north-west of the town, is not large. The name Burābalang, which means literally the Old Twister, has been given to this river because of the extraordinary way in which its course winds and bends; thus the sea is 7 miles from Balasore as the crow flies, but to reach the coast by this river entails a journey of about 18 miles. **The Burābalang.**

On the south of the Burābalang, a second network of rivers, known as the Jamkā, find their way down from the Nīlgiri Hills, and enter the sea by many channels along the coast of the Dasmalang *pargana*. There is little or no navigation, as their mouths have been closed up by the construction of the Coast Canal and are very difficult to enter; there is no maritime traffic on their banks; and the most important of these channels, the Jamkā, has a sluice built about a mile from its mouth. **The Jamkā**

The Kānsbāns is so called from a jungle of *kāns* grass and bamboos, amid which it rises in Ambahatā in the Tributary States. It runs in a south-easterly direction, at first almost parallel with the Nīlgiri Hills, and receives from them a number of nameless drainage streams on its northern bank. After passing under the triple bridge on the Trunk Road near Soro, it bifurcates at Bīrparā, the northern branch retaining its original name and flowing into the sea 30 miles from the point where it enters the district. It is navigable only a few miles up, but it is notorious for its sudden floods and for the wide extent of country which it submerges in the rainy season. Near its mouth is **The Kānsbāns.**

Laichanpur, once a frequented port, which was closed in 188 8 owing to the silting up of the river.

The Gamai.

The southern branch receives the name of Gamai, and falls into the sea 6 miles south of the Kānsbāns. Owing partly to the construction of the Coast Canal, this river has rapidly silted up, and the passage to the sea is almost closed. Three miles from its mouth is situated the old port of Churāman, once an important centre of the export trade, but now an insignificant village. Like the Kānsbāns, the Gamai is liable to heavy floods, but a great part of its flood water runs south-westwards along the old Churāman or Ricketts canal into the Matāi, which drains the country east of Bhadrakh and has a course of 40 miles.

The Baitaranī.

The Baitaranī rises among the hills in the north-west of the Keonjhar State and enters this district near the village of Balipur; after flowing in a winding easterly course across the delta, where it marks the boundary line between Cuttack and Balasore, it passes by Chāndbāli and joins its waters with the Brāhmanī. It then joins the Dhāmra 5 miles from its mouth, after a course of about 45 miles along the southern boundary of the district, and the united stream finds its way into the sea under the name of the Dhāmra river. It is navigable as far as Olokh, 15 miles from its mouth; but beyond this point it is not affected by the tide and is fordable during the hot season. The river is subject annually to heavy floods, which travel inland to an average distance of 4 miles, and occasionally as far as 12 miles, and cause considerable damage to the standing crops. Down to Akshuāpadā the left bank is protected by an embankment, but below this the country-side is exposed to inundation, while the embankment on the right or Cuttack side prevents the discharge of water in that direction. A large weir has been constructed across the stream at Akshuā-padā in order to dam the water during the dry season and supply the portion of the High Level Canal between that place and Bhadrakh.

This river is identified by the Brāhmans as the Styx of Hindu mythology, but the name is possibly a corruption of Avitaranī, meaning "difficult to cross." Legend relates that Rāma, when marching to Ceylon to rescue his wife Sīta from the ten-headed demon Rāvana, halted on its banks on the borders of Keonjhar; and in commemoration of this event large numbers of people visit the river every January. The Baitaranī receives two important tributaries in Balasore, the Sālandī and the Matāi.

The Sālandī

The Sālandī, a corruption of Sālnadī or the Sāl river, takes its name from the *sāl* (Shorea robusta) forests which it traverses. It rises on the southern slope of the Meghāsani mountain (literally

the seat of clouds) in Mayūrbhanj, and throughout its upper course is a black-water river with high banks and a bottom of muddy sand. In January it scarcely anywhere exceeds 3 feet in depth. Luxuriant vegetation clothes its banks, which in places rise almost to the dignity of cliffs, and for miles the river runs through continuous groves of mangoes, palms, and bamboos. It forms no islands or lakes, and has no tide, but it is navigable for country boats as high as 6 miles from its junction with the Baitaranī. Its lower course breaks up into a network of channels, which are interlaced with those of the Matāi.

The Matāi brings down the drainage of the country between the Kānsbāns and the Sālandī, and after a tortuous course over a muddy bed and between densely wooded banks enters the Dhāmra river near its mouth. This river attains a considerable volume at Chārbātiā, where it is joined by the Coast Canal; it runs thence into the Dhāmra, which connects it with the port of Chāndbāli. It is tidal as far as Ruknādeipur, 8 miles east of Bhadrakh, and is navigable up to that point by country boats. The Matāi.

Among the minor rivers of the district may be mentioned the Hāskurā, Sārathā, Pāgā and Nembu rivers. The Hāskurā, literally the duck-swimming river, is a hill stream which rises in Mayūrbhanj, and flowing across the Trunk Road below Rājghāt, passes south over the Bastā-Bāliāpāl road to Tappa Bulang, where it communicates through an inlet with the Coast Canal. The stream contains very little water during the hot weather, but has been known to cause considerable damage in the rains, when it carries off a large part of the flood of the Subarnarekhā. The Sārathā runs a parallel course a few miles to the south, and passing under the bridge on the Trunk Road at Bastā, runs into the sea at the mouth of the Pānchpāra; it is tidal as far as the Coast Canal 10 miles from the sea. The Pāgā is a small stream south of the Burābalang with a length of only 10 miles. The name is said to be a corruption of Paryāg, the old name of the village near which it rises. The Nembu or Kantiāchera rises in the Nīlgiri Hills and runs a course of 15 miles in the district. The name is said to mean the lemon river, and to be derived from the lemon groves which formerly used to fringe its banks. Minor rivers. The Hāskurā. The Sārathā. The Pāgā. The Nembu.

The district has a coast-line of 85 miles through which several great rivers make their way to the sea. In spite, however, of the existence of these estuaries and of the extent of its sea face, the district does not contain a single harbour capable of sheltering ships of any great size. In the words of Sir William Hunter,* "an ESTUARIES AND HARBOURS.

* Sir W. W. Hunter, Orissa, 1872.

eternal war goes on between the rivers and the sea, the former struggling to find vent for their columns of water and silt, the latter repelling them with its sand-laden currents." These forces counteract each other, and the sea deposits a bar outside the river mouth, while the river pushes out its delta to right and left inside. These rivers consequently silt up at the mouth, and, though they are generally of sufficient depth, each is blocked up by a bar of sand or mud, which prevents the entrance of large sea-going vessels except at high tide. Silt, the common enemy of waterways in Orissa, has been fatal to the prosperity of almost every port in the district.

In the year 1871 there were seven ports, Subarnarekhā, Sārathā, Chānuyā (Chhaunā), Balasore, Laichanpur, Churāman, and the Dhāmra, including Chāndbāli. Some of these ports were, however, very insignificant. Sārathā and Chānuyā were merely demarcated portions of the rivers known by those names, deep slimy nullahs on which it was most difficult to land owing to the soft muddy banks. Laichanpur, 23 miles south of Balasore, and Churāman, 6 miles further on, were also parts of two nullahs, the mouths of which were so nearly closed that to steer a small jolly boat into them and out to sea again required careful watching of the tides, while they were so completely concealed by a dense fringe of jungle that it was almost impossible to discover them from the sea. Churāman was, however, once considered the safest and most convenient port on the coast of Orissa, largely owing to the facilities afforded by the extraordinarily soft and yielding nature of the mud bottom of the river. The rice sloops penetrated as near the coast as high water would allow them to push their way, and the receding tide left the greater part of their hulls resting securely on a soft cushion of mud. It was a well-known fact on the coast that, should there be any doubt as to the possibility of weathering a dangerous storm, the safest plan was to run the ship straight into the bay of Churāman, where the thick, half-liquid mass of mud in solution counteracted the violence of the winds and waves.

Owing to the silting up of the river mouths, to the construction of the Coast Canal, which, while providing a new waterway, facilitated the process, and to the abandonment of the old salt manufacture, many of these ports have now ceased to exist, while the position of others has been changed. Thus Subarnarekhā is now represented by Batangā and Māndhātā on the Coast Canal and Bārabātiā on the Guchidā river; Pānchpāra has taken the place of Sārathā; Churāman and Laichanpur have ceased to exist; a new port has been formed at Bāliāpāl on the Matāi river; and Chāndbāli has absorbed the trade of the old port of Dhāmra.

An account of the principal ports will be found in Chapter X, and it will be sufficient here to mention the three chief estuaries of the district, viz., those of the Subarnarekhā, Burābalang and Dhāmra.

The Subarnarekhā estuary.

A few centuries ago the Subarnarekhā was a noble estuary, which was admirably suited for a harbour, and was consequently one of the first places to attract European mercantile enterprise. Here at the close of the 16th century the Portuguese established themselves at Piplī; that harbour was also the rendezvous of the Arakanese pirates; and later the English appear to have made a small settlement there. But the Subarnarekhā, though exceeding all the other rivers of the district in length, in the area of its catchment basin and in volume of discharge, was one of the first to silt up. By the beginning of the 18th century the silting up of its mouth had ruined Piplī, and the settlement was abandoned. The place lingered on as a ruined and silt-locked village, and was known as late as the early years of the 19th century, but no trace of it now remains. Once the most important port in the district, the Subarnarekhā is now least resorted to, though it is still frequented by fishing boats, which in fair weather sail out in little fleets of fifteen and twenty and travel down the coast as far as Purī. The sands stretching across its mouth are almost bare at low water, but beyond the bar there is a magnificent deep channel. It is, however, quite unsafe during the south-west monsoon, as it presents a dead lee shore with breakers right across the mouth.

The Burābalang estuary.

Further down the coast is the estuary of the Burābalang or Balasore river. The port consists of the portion of the river fronting the town of Balasore, and is about three-quarters of a mile in length. It is situated about 7 miles from the coast in a direct line; but the river's course is so sinuous that the distance by water is 15 miles. From Balasore to the sea, the river itself has a fair depth of water; it is at its mouth that the difficulties of navigation begin or end, according as the vessel is bound outwards or inwards. From that point to the Balasore buoy, at a distance of 6 miles from the river's mouth, a narrow channel leads between sandbanks on both sides. The bar itself is half a mile long, and is a little over 2 miles from the river's mouth. In spring tides there is only a depth of one foot over it at low water, while high water gives a rise of 13 feet. A project for rendering the course of the river shorter and straighter, by cutting through the narrow necks of land that divide the different loops, was long under discussion; and it was hoped that this measure might add to the velocity of the tides, and enable the tidal scour to deepen the

channel over the bar. A cut was actually made about the year 1863, which succeeded in shortening the course of the river by about a mile, but the project was eventually abandoned.

The Dhāmra estuary.

The Dhāmra, which forms part of the boundary line between Balasore and Cuttack, is a fine estuary formed by the junction of the Brāhmanī and Baitaranī rivers. There is a dangerous bar across the mouth, but the entrance has been greatly improved of late years, and at flood tide vessels drawing as much as 18 feet can pass in with safety. Within this, there is absolute protection from the monsoon, and the difficulties incident to vessels going up are simply those of river navigation. Chāndbāli, 20 miles from the mouth, is the most important port in Orissa.

GEOLOGY.

The district, shut in by the sea on one side and the hills on the other, is a deltaic alluvial flat formed by the large rivers which discharge their silt-laden waters into the sea. These fluviatile deposits are still going on, and the peculiar outline of the coast is entirely due to their advance. Blown sand drifts along all parts of the coast which face the south-east, and forms sand hills which cover a considerable area. They are generally bounded on each side, towards the land and towards the sea, by a low range, 60 to 80 feet high at the most, while other ranges more or less obliterated occur further inland. On the inner range there is almost always vegetation, and it seems to serve as a boundary for the barren land, which is prevented from being covered with grass by sand being continually blown upon it by high winds from the sea. There can be little doubt that each range of sand hills marks an old sea coast, and it seems probable that the sea has retired gradually and that the land has been raised, not continuously and uniformly, but at intervals and by interrupted movements. Further to the south the small, isolated, steep hills which rise from the plain to the north of Cuttack, taken in connection with the bosses and whale-like ridges which stud the surrounding country present all the features of an upraised archipelago; and lead to the belief that, at no very remote geological period, the sea of the western portion of the Bay of Bengal dashed against many a rugged cliff and rolled round clusters of islands which studded what is now the province of Orissa: indeed, a comparatively trifling depression of the country might reproduce the same phenomena. The evidences of the gradual rise of the land are numerous. It is probable that the cliff-like escarpment of the Nīlgiri range and the isolated hills which dot the whole of Orissa have been brought to nearly their present form by denudation of an ancient date; while it seems evident from the laterite conglomerate which is

found that a more recent agency has tended to modify their shape. These are not evidence of a recent rise of land, but within the memory of man the tides came further up the rivers. This may be due to the raising of the delta by fluviatile deposits, but it is stated by the natives that Balasore was once on the sea-shore, and it is doubtful if that can have been the case within historical times.

To the west of Balasore are the Nīlgiri Hills, a group of fine rocky hills projecting to within 16 to 18 miles of the shores of the Bay of Bengal, which were known to old navigators as the Nelligreen Mountains. Commencing from the north of Orissa, this range of hills runs just outside the boundary of the Province for 50 to 60 miles. They have their northern limits on the banks of the Burābalang river about 12 miles W. N. W. from Balasore. From this point they run for about 16 miles due south in a broken range formed by three short detached hills, in a pass between which the village of Nīlgiri nestles. Thence their escarpment continues for about 40 miles in a W. S. W. direction till the hills terminate at the valley of the Baitaranī. They rise to a considerable height, Nīlgiri hill being 1,786 feet above the sea, while many other summits are but little inferior in elevation. On the northern part of the range, these hills consist of excessively granitic rock; interfoliated with the gneiss there are found in one or two places bands of chloritic rock approaching serpentine in texture, which is quarried to a considerable extent by the natives. A few miles W. S. W. of Jugjuri, near the village of Pāikpadā, the rocks alter considerably, becoming a hard, tough, indistinctly crystallized hornblendic rock, and further to the south-west quartz schist comes in, well foliated and sharply cleavable.

Between the hills and the sea the land is composed of alluvium. The more northern portion extending from the Subarnarekhā to the Burābalang belongs geographically to the same country as Midnapore, being almost a perfect plain to the east, while towards the west the surface is much more irregular and undulating, covered here and there with patches of low scrub jungle. The southern portion from Balasore for about 20 miles to the south-west is a region of older alluvium similar to much of that which occurs on the skirts of the delta of Lower Bengal. The newer alluvium occurs in the river valleys, while the older alluvium is distinguished by being more sandy, and the country covered by it is more undulating, the surface having been modified by denudation. It is very frequently accompanied by the nodular limestone known as *kankar*; but this is also, though in a somewhat less degree, pretty generally distributed in the more

recent alluvium, and in some places the nodules are very large. It is extremely difficult to separate the two varieties, as they frequently pass into each other by insensible gradation, and in some places laterite may be found beneath the soil in a perfectly flat country, in which everything induces the belief that the alluvium is recent. Laterite is found in a compact form along the base of the Nīlgiri Hills, which it generally but not invariably skirts, and from the base of which it extends in many places for half a mile or a mile into the plains. But round Balasore a peculiar gravelly variety of this rock appears, forming a bed some 5 or 6 feet thick, at a short distance below the ground. This bed occurs in a tract of undulating alluvium, and is not compact as near the hills, but gravelly and sandy. It does not stretch far to the south, and it dies away also towards the hills. Further to the south it occasionally recurs, generally in the dry gravelly soils of the older alluvium, but it is sometimes also found in alluvium quite indistinguishable from the recent delta deposits.*

BOTANY. Along the coast as far north as the Burābalang river are large grassy plains with occasional sparse patches of cultivation and low jungle on the sand ridges and near the tidal streams. North of the Burābalang, and specially round the mouth of the Hāskurā and Subarnarekhā, are numerous tidal creeks fringed with heavy jungle. The banks of these sluggish rivers and creeks, which wind through the swampy low-lying country near the sea, exhibit the vegetation of a mangrove forest. Where sand dunes intervene between the sea and the cultivated land behind, a littoral vegetation uncommon in Bengal is met with, which includes *Spinifex*, *Hydrophylax*, *Geniosperum prostratum* and similar species. These sand hills stretching between the fertile rice plains and the sea constitute the only really distinctive feature of Orissa from a botanical point of view, and present not a few of the littoral species characteristic of the Madras sea-coast. The cultivated land which occupies the central alluvial tract has the usual rice-field weeds, while ponds and ditches are filled with floating water weeds or submerged water plants. Near human habitations shrubberies containing various semi-spontaneous shrubs are common. This undergrowth is loaded with a tangled mass of climbing *Naravelia*, various *Menispermaceæ*, many *Apocynaceæ*, several species of *Vitis*, a number of *Cucurbitaceæ*, and several *Convolvulaceæ*. The arborescent portion of these village-shrubberies includes the red cotton tree (*Bombax malabaricum*), *Odina Wodier*, *Tamarindus indica*, *Moringa pterygosperma*, the *pīpal* (*Ficus religiosa*),

* For further details of the Geology of Balasore, *see* Geological Structure of Midnapore, Orissa, etc., Memoirs, Geological Survey of India, Vol. i.

the banyan (*Ficus bengalensis*), the palmyra (*Borassus flabellifer*) and the date palm (*Phœnix sylvestris*). There are no forests, but in the west of the district, where the boundary approaches the hills and the lands are higher, patches of jungle occur, including a little *sāl* (*Shorea robusta*) which rarely attains any size. The usual bamboo is *Bambusa arundinacea*. Open glades are filled with grasses, sometimes of a reedy character; sedges are abundant, and ferns are fairly plentiful.

A century ago, before the land had been so closely cultivated and the canals constructed, the district abounded in wild animals. A traveller who visited Orissa in 1806 found himself in danger of the wild beasts which haunted the jungle from the moment he entered the Province; and between Balasore and Cuttack, in a country which is now thickly populated and closely cultivated, he passed through a dense jungle infested by tigers, and required a guard of sepoys to protect him from the dangers of the journey. Even as late as 1840 elephants were common; tigers and leopards were found all over the district, being especially numerous in the heavy jungle near the coast to the south; while immense herds of wild buffalo were found near the sea, and had become so large and numerous that they did incalculable mischief and were a terror to the country. Since that time cultivation has expanded very greatly, and the wild animals which formerly ranged over the country-side have had to give way before the advance of the plough. There are still however a few survivors of the lords of the jungle. Wild elephants are occasionally met with in the jungly tracts to the west, but these are only stray visitors from the Keonjhar Hills. There are also a few wild buffaloes left; and tigers, though not common, are found along the Dhāmra below Chāndbāli and in the waste tracts to the north-east round Bāliāpāl and Bhogrāi, but the jungle is so dense that they are out of reach of the sportsman's gun. The latter tract is also the haunt of leopards, and black bear are common near Panchpali and Jāmkundā. Wolves do some damage among the cultivators' cattle, and hyæna are found all over the district, wherever there is shelter for them in patches of waste land. In the sandy tracts adjoining the sea there are a number of deer, spotted deer, mouse deer and antelope; and here too there are large herds of wild pig, which do great damage to the cultivators' crops. FAUNA.

The game birds of the district include peacock, jungle fowl, black partridge, red partridge, snipe, golden plover, wild duck, wild geese, and two kinds of quail. Game birds.

A large variety of fresh-water fish are found in the rivers intersecting the district, and sea-water fish swarm up the tidal rivers. Fish.

Seafishing is an important industry which is confined at present to the foreshore. Deep sea fishing is not practised, but the abundance and variety of fish caught on the foreshore indicate the wealth of marine life that may reasonably be looked for in the deep sea. There are no less than seven fishing stations along the coast, the best known being Chandīpur, from which Calcutta derives part of its supply. The fishermen are particularly keen in their pursuit of the *hilsā*, and a flotilla of sea-going craft will sometimes drift along together for days, awaiting the approach of a shoal of that fish. When the shoal arrives, they at once fill their boats, steer straight for shore, and convert their haul into *sukhuā* or sun-dried fragments of fish—a favourite relish with the Oriyās. Besides the *hilsā*, the most common sea fish are the *bekti* and *teliā*, and the delicious *tapsi* or mango-fish is found in the tidal waters of the Subarnarekhā and Burābalang.

Fishing in the estuaries is confined to the cold weather, when very large hauls are made. Owing to the distance of the markets from the scene of the fishermen's operations, most of the fish caught is either dried or salted for despatch inland. In the inland rivers the Oriyā spends all his spare time fishing, often standing up to his neck in water for the greater part of the day. The most common fresh-water fish are the *rohi*, *bhākura* and *bāhā*, which are found in nearly every tank and river, but there are a great number of other species, which form an important article of food in the cultivators' daily diet.

Alligators and crocodiles are found in all the largest rivers, and the mugger or snub-nosed crocodiles are often very destructive.

CLIMATE. As in other parts of Bengal, the year may be said to be divided into three seasons, the cold weather, the hot weather and the rains. The hot weather commences in March and terminates with the setting in of the rains in June. During this part of the year the heat is tempered by a strong sea breeze from the south-west, which keeps the atmosphere pleasant by day and cool at night. A regular hot wind is rarely felt, and never continues more than 8 or 10 days. The temperature by the sea-side in the hot weather is always several degrees less than at Balasore itself. The south-west monsoon blows steadily from the sea, and even in the months of April and May the morning breeze is so invigorating that a pankha can be dispensed with. The coast is, however, almost inaccessible for vessels from the violence of the wind and surf. In April and May the district is occasionally visited by severe thunderstorms which gather in the hills and descend upon the adjacent plains. The rainy season begins in June or early in July, and

the rains last till the end of September or the month of October, when an unpleasant time of moist heat marks their cessation. This season is as disagreeable here as elsewhere, owing to the land winds, which are variable and seldom blow from any quarter long. The cold weather commences at the close of October, after the breaking up of the south-west monsoon. By the beginning of November the air begins to cool, and the mornings and evenings are chilly; but the climate has not the same invigorating and bracing effect as that of Northern India. The atmosphere is generally clear, but rain may be expected for a few days in December and January; and shortly before the beginning of the hot weather in March, there are occasional nor'-westers accompanied by thunder, lightning and rain.

Temperature. The district is directly on the tract of the cyclonic storms which frequently cross Orissa during the monsoon season, and the extremes of climate are more marked than in other parts of Bengal. In April and May the average maximum temperature is 98°; while the mean temperature falls from 89° in the hot weather months to 83° in the monsoon season and to 74° in February. The average temperature varies from 47° to 94° during the months of December, January and February; from 62° to 109° in March to May; from 66° to 94° during the rains; and from 56° to 92° in October and November. During recent years the highest temperature recorded was 116° in the month of May, and the lowest 44° in the month of December.

Humidity. Owing to the dry westerly winds which occasionally sweep across the district in the hot season, and to the well marked south-west monsoon conditions which occur later in the year, humidity undergoes considerable variation, ranging on an average from 79 per cent. of saturation in April and May to 89 per cent. in August.

Rainfall. The normal annual rainfall is 60 inches, of which 5·1 fall in May, 9 in June, 12 in July, 11·5 in August, 11·2 in September and 5·1 in October. Cyclonic storms occasionally occur in the north of the Bay of Bengal in May, and with these storms weather of the south-west monsoon type prevails. From June to September the monthly rainfall varies from 11 to 12 inches on an average, with considerable fluctuations from year to year, according as the cyclonic storms are more or less numerous and move in the usual course westward over Orissa. In October the rainfall depends on causes similar to those mentioned for May, and is similar in amount. Between November and April rainfall is light, and is usually caused by local thunderstorms.

Statistics of the rainfall for the various recording stations are given below for the cold weather (November to February), the hot

weather (March to May) and the rainy season (June to October), the figures shown being the averages recorded.

STATIONS.		Years recorded.	November to February.	March to May.	June to October.	Annual average.
BALASORE	...	41-42	3·14	9·58	53·93	66·65
AKSHUAPADA	...	16-17	2·54	7·84	47·94	58·32
BHADRAKH	...	30-31	3·06	9·13	49·20	61·39
CHANDBALI	...	27-28	3·56	7·40	50·27	61·23
JALESWAR	...	27-28	2·23	6·92	49·07	58·22
SORO	...	27-28	2·25	9·20	47·46	58·91

Winds. From March to August the general direction of the wind, according to the matutinal readings, is from the south-west and from September to February from the north-west. During the latter months, however, it veers considerably, and often blows from the north-east. In the hot weather the breeze blows in great strength from the sea after mid-day, and penetrates as far as 8 or 10 miles inland; it is most refreshing in the evenings in the months of April and May, after the excessive heat during the day.

Cyclones. The cyclones which occur in the rains proper (*i.e.*, in June, July, August and September) are generally small in extent; and the chief danger is from the devastating cyclones which occasionally occur in the months which precede and follow the full establishment of the south-west monsoon, *i.e.*, during April and May, October and November. Placed at the north-west corner of the Bay of Bengal, Balasore is exposed to the full brunt of the cyclones which are generated at sea, and, travelling in a north-westerly course up the Bay, burst upon its shores accompanied by irresistible storm-waves. An account of the most notable of these cyclones will be given in Chapter VII.

CHAPTER II.

HISTORY.

PREHISTORIC PERIOD.

In prehistoric times the hills of Orissa* appear to have been peopled by savage tribes differing from those which occupied the lowlands near the sea, while the intervening plains were in the possession of races somewhat more civilized. It is probable that several of the tribes which still inhabit the hilly country to the west were originally natives of Orissa; but the absence of reliable data makes it difficult to separate the later immigrants from the early settlers. According to the traditions current among those tribes, the Khonds of the south, the Gonds of the west, and the Hos, Bhumijes and Santāls of the north would appear to have migrated to Orissa in historic times; and the Savars, who still hold a degraded position in Orissa as hewers of wood, have better claims to be regarded as an autocthonous race. They are several times alluded to in the Bhagavatī, the oldest sacred literature of the Jains, where their language is referred to as one of the *mlechchhabhāshās* or barbarous tongues; and they have been identified with the Suari of Pliny and the Sabarai of Ptolemy.

The Savars.

The Juāngs.

The Juāngs of the Tributary States, who are one of the most primitive races of India, would seem to be another of the early tribes of Orissa. Till they were clothed by order of the Government, the only covering of the females consisted of a few strings of beads round the waist, with a bunch of leaves before and behind—a practice which has given them the name of Patuas or Patrasaras (leaf-wearers) in Orissa; they had no knowledge of the metals till the 19th century, when foreigners came among them; and

* The account of the history of the district up to the time of the Muhammadan invasion has been prepared from an article kindly supplied by Bābu Monmohan Chakravarti, M.A., B.L., M.R.A.S. The account of its subsequent history has been compiled very largely from an article by Mr. John Beames, C.S., which was originally prepared for a District Manual of Balasore and published under the title of "Notes on the History of Orissa" in 1883 in vol. lii of the Journal of the Asiatic Society of Bengal.

Properly speaking, Orissa (Sans. *Utkala*, vern. *Odīsā*) means the tract in which the speakers of Oriyā form the dominant people. During the period of British rule the name has been applied to the tract extending from the Chilka Lake to the river Subarnarekhā and comprising the districts of Purī, Cuttack, Balasore, and Angul, besides 17 Tributary States. Unless the context shows otherwise, this will be the meaning of Orissa in this chapter.

no word existed in their own language for iron or any other kind of metal.

The Pāns. The Pāns, who are found scattered throughout Orissa, Singhbhūm, Rānchī, and the adjoining tracts in the Central Provinces and Madras, should also probably be regarded as one of the prehistoric peoples of Orissa. Everywhere they rank among the lowest classes; they are employed in servile occupations even by such tribes as the Khonds and Bhuiyās; and in the days of human sacrifices, the Khonds selected a Pān boy as the best sacrifice which could be offered to mother earth. All these facts seem to indicate that they were the original occupants of the soil, who were dispossessed and reduced to slavery by other tribes.

The Kewats. The sea-coast and the lowlands behind it were presumably occupied by tribes following the occupations of fishermen and boatmen. The Kewats, including the cognate castes, the Gokhās and the Mallāhs, have been traced to very early times as the Kevatas of Asoka's Pillar Edict No. V, and, in the Sanskrit form of the name, as the Kaibarttas.

The Utkalas and Odras. The intervening plains and uplands appear to have been held by tribes on a somewhat higher level of civilization. From the scanty references made to them in later literature, it would seem that some of these tribes were known as Odras and Utkalas, two tribes, which in course of time, spread southwards, the Utkalas being absorbed in the larger tribe of Odras, though they gave their name to the land in Sanskrit works at least before the 5th century A.D. Gradually, they spread further south to Kalinga, till that land became divided between two main speeches, the Oriyā and the Telugu.

Early Indo-Aryan settlers. It seems probable that before the 3rd century B.C., several of the Indo-Aryan castes, such as the Brāhmans, Kshattriyas, Karans and others, had migrated to Orissa, which then formed part of Kalinga. In the Baudhāyana Dharma Sūtra it is laid down that the man who has visited Kalinga must offer a sacrifice in penance; in the Mahābhārata pilgrims are asked to avoid Kalinga, and it also says that the Kshattriyas in Kalinga had become outcastes; while a similar statement is made in the Manu-Sanhitā regarding the Kshattriyas who lived among the Odras. These references appear to point to the migration of several Indo-Aryan castes, and among them there must have been Brāhmans. The Māstāns and the Sāruās are probably the descendants of these early immigrants; they call themselves Brāhmans, and wear the sacred thread, though they neglect the nine *sanskāras* or ceremonies incumbent on Brāhmans, and have taken to forbidden occupations, such as cultivating with their own hands, selling vegetables, etc.

EARLY HISTORIC PERIOD.

Kalinga.

As Orissa formed part of Kalinga before the conquest of Asoka, its early history is merged in the history of that country. Kalinga extended, according to the Mahābhārata, southwards from the junction of the Ganges with the sea, the river Baitaranī being specially mentioned as in Kalinga; while, according to Pliny, it stretched as far south as the promontory of Calingon, which has been identified with the promontory of Coringa at the mouth of the Godavari. It was an extensive, populous and fairly civilized kingdom. Some idea of the vast number of its population may be gathered from the Rock Edict XIII, which begins with saying that when Asoka conquered Kalinga, 150,000 persons were carried away captive, 100,000 were slain, and many times that number perished. The evidence of the high standard of civilization and prosperity attained in Kalinga is equally striking; elephants were specially bred for the royal forces, of which they formed a prominent part; diamonds of a special kind were quarried and exported; there was an entirely separate measure for medicines; cloth was manufactured and exported in such quantities that Kalinga became the word for cloth in old Tamil; and frequent sea voyages were made to countries outside India, on account of which the Indians came to be called Klings in the Malay Peninsula.

Asoka's reign.

As the result of the bloody war mentioned above, Orissa and Kalinga were incorporated in the empire of Asoka in the ninth year of his reign, *i.e.*, in 262 or 261 B.C. The horrors which accompanied this war made a deep impression on the heart of the victorious monarch, who recorded on the rocks in imperishable words the sufferings of the vanquished, the remorse of the victor, and his conviction that the only true conquest is that effected by *dharma*, or the law of piety, and not by force of arms. With these edicts Orissa practically emerges for the first time into the light of history. From them we learn that the empire was divided for administrative purposes into several great divisions, with a prince in charge of each; and it was considered necessary to place the extensive and newly-conquered territories of Kalinga under a viceroy stationed at Tosāli, which was probably some place near the modern Bhubaneswar in the Purī district.

The Maurya rule.

According to the Purānas, the Mauryan Empire lasted till about 180-170 B. C., and Orissa was therefore under the sway of its kings for 80 to 90 years. During this time it must have come into closer relations with Northern India. Its inaccessibility was to some extent removed by roads lined with banyan and mango groves, with wells and rest-houses, and by the arrangements made for the greater safety of Government messengers and travellers

These measures naturally facilitated an influx not only of officials but also of traders and pilgrims, some of whom eventually settled in the land. Hence in the Mahābhārata, one finds later verses declaring that there were good men in Kalinga, and that *tīrthas* existed in that country, thus withdrawing the ban laid on travelling there. With the Jainas Kalinga ranked still higher as an *Ariya* country, and naturally so, for one finds traces of their very early residence in the land in the sandstone hills of Udayagiri and Khandgiri, 5 miles north-west of Bhubaneswar, which are honey-combed with their caves.

Reign of Khāravela.

Vrihadrath, the last of the Mauryas, was dethroned by his general Pushyamitra, who founded the Sunga dynasty (*cir.* 180-170 B. C.); and his overthrow having brought about the disruption of the empire, Kalinga became independent. This is evident from an inscription at Udayagiri dated 153 B. C., which purports to narrate the career of Khāravela, king of Kalinga. This inscription shows that Khāravela made Kalinga a powerful empire. One of his first acts was to assist the king of the Andhra country, *i. e.*, the tract between the Godāvari and the Krishnā, in fighting against his suzerain, the Sunga Emperor, Pushyamitra, in 164 B. C. The invasion of Magadha, *i.e.*, South Bihār, later in his reign indicates that the Kalinga king had become not only independent but aggressive. In this war a successful expedition into the heart of the empire led him to the capital, Pātaliputra (Patna), on the banks of the Ganges, and compelled the Emperor to sue for peace and acknowledge his independence. The inscription also affords good grounds for the belief that the king and his family had a leaning towards Jainism; and his successors were apparently also adherents of that religion.

The Andhra rule.

In the second century A. D. Kalinga appears to have been overshadowed and probably absorbed by the Andhras, to whose active influence the introduction of Buddhism may perhaps be ascribed. The Tibetan chronicles have preserved a tradition that the king of Otisha was converted to Buddhism, with 1,000 of his subjects, by Nagarjuna, who is believed to have flourished, about 200 A. D., at the court of the Andhras; and the conversion of the people would naturally have been facilitated, if Orissa was subject to that powerful dynasty.

MEDIÆVAL PERIOD.

From this time there is a gap of several centuries until the beginning of the seventh century, when we know from an inscription that the country of Kongeda to the south of Orissa had been subdued by Sasānka, the powerful king of Gauda. Orissa must also have acknowledged his sway, but shortly afterwards both

countries were conquered by Silāditya Harshavardhana of Kanauj, a devout adherent of Buddhism, who offered the Buddhist monk Jayasena the rental of 80 villages in Orissa, in order to induce him to come from Magadha to his court and overcome the heterodoxy of the priests of Orissa, who decried the Nālanda doctrine as the "sky-flower" system.

It was during his reign that the Chinese traveller, Hiuen Tsiang, visited Orissa (639 A. D.), and we have a short but graphic account of the country in his records. The country, he says, was about 7,000 *li* (a *li* is $\frac{1}{5}$th to $\frac{1}{6}$th of a mile) in circuit, the climate was hot, the soil was fertile and produced abundance of grain and fruit. The people were uncivilized, tall of stature and of a yellowish-black complexion. They loved learning and applied themselves to it without intermission. Most of them believed in the law of Buddha; and there were some hundred monasteries with 10,000 priests all studying the Mahāyāna or the Great Vehicle, besides 50 Deva temples frequented by sectaries of all sorts. The capital, which has been identified with Jājpur in the Cuttack district, lay 700 *li* south-west of Tamrālipti (Tamlūk); on the south-west frontier was a miraculous monastery, called Pushpagiri, situated on a great hill; and on the south-east frontier, on the borders of the ocean, lay a great walled port named Charitra.

The Kesarī dynasty

On the death of Silāditya, his empire was dismembered, and, according to the Mādalā Pānji or palm-leaf chronicles of the temple of Jagannāth, Orissa was under the Kesarī or Lion dynasty from the 7th to the 12th century A.D. The very existence of this dynasty is denied by several scholars, but in the Bhakti-bhāgavata Mahākāvyam, a Sanskrit poem of 1409-10 A.D., which gives a very brief history of Orissa, it is distinctly stated that the Kesarī kings preceded the Gangas and that Udyota Kesarī was one of them; and two inscriptions of the time of Udyota Kesarī have been discovered, one in the Nabamuni cave on the Khandgiri hill and the other in the Brahmeswar temple at Bhubaneswar. M. Silvain Lévi, moreover, states that in the Japanese edition of the Chinese Tripitaka is a translation of a part of the Buddhist Buddhāvatamsaka Sūtra, made by a monk in 796-98 A.D. on a copy of the Sūtra which was sent as a present to the Emperor of China by the king of U-tcha (Odra), and that this king is named in the letter of presentation as Srī Māhesvar or Parama Māhesvar Mahārājā Subhakara Kesarī. Another Kesarī king of Orissa, Karna Kesarī, is mentioned in the commentary of the historical poem Rāmapāla-Charitam as having been defeated by Jayasingh, king of Danda-bhukti (Bihār): both the poem and the commentary are believed to be by the same author, who was probably a contemporary

of the hero of the poem, Rāmapāla, king of Magadha, who flourished in the latter half of the 11th century.

Mediæval civilization.

The palm-leaf chronicles attribute most of the great temples at Bhubaneswar to this dynasty, and this, if true, must place it among the important dynasties of India. The number and magnificence of the remains at Bhubaneswar and elsewhere make it clear that the kings who erected these great works must have held vast and populous dominions and been able to command ample resources. The art of architecture and sculpture must have been well developed to enable such huge and lavishly carved structures to be designed and constructed; the artisans must have received a good training, both mechanically and artistically, before they could have moved and laid in place (without mortar) such gigantic stone blocks, or could have produced the vigorous and often exquisitely carved figures, foliage and arabesque patterns, which lend a charm to the carvings adorning these shrines.

These stately temples show the hold which Hinduism had obtained in Orissa by this time, but a few centuries earlier Hiuen Tsiang found Buddhism flourishing side by side with Hinduism, and his account is corroborated by the presentation of Buddhist scriptures to the Chinese Emperor in the eighth century. The Mahāyāna type of Buddhism, which the Chinese pilgrim found in Orissa, seems to have been supplanted gradually by the Tāntrik forms of the Magadha school, of which traces may be found in the images which are still to be seen in the Assia Hills. The caves at Khandgiri and Udayagiri also bear signs of a Jaina revival, probably a reflex of the Jaina influence in the Western Deccan. Magnificent as are these monuments, not a single literary work of this period has as yet come to light. Buddhist philosophy, however, was not neglected, as otherwise the monks would not have dared to challenge and decry the doctrines taught in the great Nālanda monastery.

The Eastern Ganga dynasty.

In the beginning of the 11th century, the Cholas, who had established a great empire in the Deccan, began to extend their power over Orissa; but their conquests do not appear to have left any permanent mark on the country, being merely brief but successful expeditions. At the end of that century it was effectually subdued by the Eastern Gangas of Kalinganagara (the modern Mukhalingam in the Ganjām district), and the rule of these monarchs lasted till 1434-35, the dynasty including altogether 15 kings. Of these by far the most powerful was Chodaganga, who extended his dominions from the Godāvari to the Ganges, and built the famous temple of Jagannāth at Purī.

The only notable events in the reigns of the succeeding sovereigns are their struggles with the Musalmāns of Bengal, and later on with the Bāhmani and other Sultāns. In 1205 came the first Muhammadan incursion, when Muhammad-i-Shīrān, an officer of Bakhtiyār Khiljī, burst down upon the country, and this incursion was followed by many others. In an inscription at Chāteswar in Cuttack the founder, a Brāhman minister of Ananga Bhīma Deva (1211-38), claims to have fought with Yāvanas, by which he probably means Ghiās-ud-dīn Iwaz, the fourth Bengal Sultān, and with the lord of Tummāna in the Chedí country. The Tabakat-i-Nāsiri records in 1244 first a raid made by the Orissan army, and then a counter-raid of the Bengal king Tughril-i-Tughān Khàn, which ended with his defeat by the local levies; in 1245 the Oriyās retaliated by marching northwards under Sāban-tar, who took Lakhnor, besieged Lakhnautī, and only raised the siege on the arrival of reinforcements from Oudh and the Doāb; and between 1247 and 1258 there were three battles between the Oriyās under the same leader and the Muhammadan forces under Malik Ikhtiyār-ud-dīn Yuzbak-i-Tughril Khān of Bengal. In the last of these battles the latter was defeated, but next year he again led his army to the south, and captured and sacked the capital, Umurdan. All this fighting took place during the reign of Nara Sinha Deva, who is better known to posterity as the founder of the beautiful temple of Konārak. Muhammadan raids.

The object of most of the raids was to secure the elephants for which Jājnagar, as the Muhammadan chronicles styled Orissa, was famous. The foray of the Bengal governor, Tughril Khān, in 1279 or 1280 resulted in the capture of a great number of these animals; in 1323 Ulugh Khān, the son of the Delhi Sultān, Ghiās-ud-dīn Tughlik, took away 40 of them; and similar results followed the inroads of the Bāhmani Sultān, Firoz, in 1412, and of Hushan-ud-dīn Hoshang, the king of Mālwā, in 1422. The most remarkable of all, however, was the invasion of the Delhi Emperor, Firoz Shāh, in 1360-61. Leaving the baggage behind, the Emperor marched on to Bihār, and then advanced rapidly through the jungles to Orissa. Crossing the Mahānadī, he occupied the royal residence at Cuttack, and spent several days hunting elephants; and when the Oriyā king sent envoys to sue for peace, ironically replied that he had only come to hunt elephants and was surprised that instead of welcoming him, the Rai had taken flight. Finally, the latter sent a present of 20 elephants and agreed to send a certain number annually as tribute, and the Emperor then started on his return journey. It was a disastrous march; the guides lost their way, the army

climbed mountain after mountain without finding any road, and it was not till after 6 months that the exhausted soldiers succeeded in making their way into open country.

The Solar dynasty.

In the meantime, the Vijayanagara kings rose to power, and Orissa was exposed to attack from the south no less than from the north. On the death of the last Ganga king, his minister, Kapilendradeva, aided by the nobles and the Bāhmani Emperor, Ahmad Shāh II, seized the throne and founded the Sūryavansa or Solar dynasty in 1435. He found the fortunes of his kingdom at a very low ebb, but succeeded by constant wars in extending its limits till it stretched from the Ganges to the Pennār. In Bengal Shams-ud-dīn Ahmad Shāh was striving to keep up a tottering throne, and here the Oriyās extended their frontier up to the Ganges. In the south Telingānā was divided among a number of petty chiefs; and Kapilendra overran and annexed the country as far as the Krishnā. South of this river, the last two kings of the first Vijayanagara dynasty, harassed by internal revolt and bloody wars with the Bāhmani Sultāns, were struggling to uphold a sinking empire. Taking advantage of their troubles, the Oriyā king annexed the east coast south of the Krishnā as far as Udayagiri near Nellore, and then successfully resisted the attempts of the Bāhmani Sultāns to crush him. In 1457 he forced their army to retire from the siege of Davarakonda, and 4 years later, on the death of Humāyūn, ravaged their territories up to Bidar. Energetic as was his foreign policy, he showed no less vigour in his internal administration. One of the earliest measures of his reign was to remit the *chaukīdāri* tax paid by Brāhmans and the tax on salt and cowries, to stop the resumption of waste and pasture lands, and to issue orders that all the chiefs in Orissa were to work for the general good on pain of banishment and confiscation of their property.

On the death of Kapilendra in 1470, a civil war ensued, but finally Purusottamadeva overcame his rivals with the help of Muhammad Shāh II, to whom he ceded the southern districts of Kondāpalli and Rājāmahendri. His subsequent attempt to recover them led to an invasion by Muhammad Shāh, but the Oriyā king appears ultimately to have regained them, and to have extended his kingdom at least as far as Kondavidu to the south. His son, Pratāparudradeva, ascended the throne in 1497, and had at once to march to the north to repel an invading army sent by the king of Bengal, Alā-ud-dīn, and ten years later he had again to drive out another force which advanced under the Bengal general, Ismail Khān. In the south he was engaged in constant wars with Narasa, the founder of the second Vijayanagara dynasty

and with his famous son, Krishnarāya, till the struggle ended with the cession of all the territory south of the Krishnā by the Oriyā king. His kingdom was still further reduced by the loss of the tract between the Krishnā and Godāvari in 1522, when Kulī Kutb Shāh, the founder of the Golconda dynasty, invaded Telingānā and drove out the Oriyā army. Although, however, the reign of Pratāparudradeva was one of temporal decline, it witnessed a great religious revival, owing to the spread of the Vishnuite doctrines. In 1510 Chaitanya, the great apostle of Vaishnavism, repaired to Orissa and there devoted the rest of his days to the propagation of the faith ; he is said to have converted the king and several of his officers, but his preaching was not confined to the court, and the purity of his life and doctrines made a lasting impression on the people generally.

The Solar dynasty did not long survive the death of Pratāparudradeva. The powerful minister, Govinda Bidhyādhara, killed his two sons one after the other, and in 1541-42 seized the throne. The short-lived Bhoi dynasty which he established only lasted till 1560, and the few years it covered were spent in civil war. First Raghubhanja, the nephew of Govinda, revolted, but was soon defeated and driven out of the country by his uncle. On the death of his son, whose unpopular reign ended about 1557, the minister, Mukunda Deva, rebelled, and after killing the two last Bhoi kings and defeating Raghubhanja, who had returned at the head of a Bengal army, secured the throne in 1560. **The Bhoi dynasty.**

Mukunda Deva, who was a Telugu by birth, was the last independent Hindu king of Orissa, which at this time was in danger from its powerful neighbours both on the north and south. In 1564 Ibrāhim the Golconda king was eager for aggrandizement, and in Bengal Sulaimān Karānī was equally anxious to extend his dominions by annexing Orissa. In 1564-65 Mukunda Deva concluded a treaty with the Emperor Akbar, which was intended as a counterpoise to the ambition of the Afghāns in Bengal, but this measure did not long help the Oriyā king. In 1567 Ibrāhim, who had invaded Rājāmahendri unsuccessfully three years previously, conquered the country as far north as Chicācole ; and next year Sulaimān Karānī, finding Akbar fully occupied by wars in the west, attacked Mukunda Deva, when he had marched to the banks of the Ganges, and forced him to take refuge in the frontier fort of Kotsamā. He then detached a part of his force under his Afghān general, Illāhābād Kālā Pahār, who quickly marched southwards through Mayūrbhanj, defeated the king's deputy, and ravaged Orissa. At this juncture, one of the Oriyā chiefs raised the standard of revolt, and hearing of this, Mukunda **Mukunda Deva.**

Deva hurried south to save his kingdom, but was defeated and slain by the rebel forces, whose leader was in his turn killed by the Muhammadan invaders. Raghubhanja escaped from the prison in which he had been confined by Mukunda Deva and attempted to secure the empty throne, but after some four months desultory fighting, his death left the Afghāns masters of Orissa (1568 A. D.).

General condition of the country.

Of the internal state of the country during these five centuries of Hindu sovereignty, we have unfortunately very little record. Both Buddhism and Jainism were neglected by the Ganga and the Solar kings, and, if the palm-leaf records can be believed, the followers of those religions were persecuted by the former line. The Gangas did not, however, neglect the older Saiva worship; and, though they did not build any temples themselves, their rich gifts to the shrines at Bhubaneswar shew that they were the royal patrons of Saivism. At the same time, they seem to have been catholic in their religious tastes, as the great Vaishnavite fane of Jagannāth at Purī and the massive sun-temple of Konārak were built under their orders; and the Sūryavansa kings followed in their footsteps, liberally endowing the Puri temple.

The land was a land of plenty, producing abundance of grain and fruit, but in spite of this plenty, the people were occasionally exposed to the horrors of famine. The palm-leaf chronicles mention one such famine in the reign of Kapilendradeva when the price of a *bharan* of paddy rose to 105 *kāhāns* of cowries, while in the reign of Pratāparudradeva it was once as high as 125 *kāhāns*. Except in times of distress, provisions were exceedingly cheap, cowrie-shells were the only medium of exchange among the people generally, and there was no demand for a gold or silver currency.

THE MUHAMMADAN PERIOD.

The northern part of Balasore from the Kānsbāns to the frontier of Bengal appears to have still been in an undeveloped state. Though Central and Southern Orissa are full of the great stone buildings erected by its kings, there is a noticeable absence in the north of any forts, temples, palaces or bridges which can be traced to a period earlier than the 16th century. To that time must be attributed the strong chain of forts at Raibania in the extreme northern corner of the district, just opposite the place where the old Pathān road crosses the Subarnarekhā. This road, which runs parallel to the Trunk Road but nearer the hills, and which is left uncultivated by the peasants apparently from superstitious motives, was made or used at about the same time by the Afghāns during their expeditions to Cuttack. Further evidence of the undeveloped state of the north of the district is afforded by the fact that tenures granted for the purpose of clearing and settling forest land

are numerous there, while they are hardly known south of the Kānsbāns, except in the hills; that it contains a large number of villages whose name begins with the word Ban or forest; and that there is a marked prevalence of the aboriginal type among the lower classes.*

With the Muhammadan conquest Balasore emerged from its former obscurity, and became the highway along which the Muhammadan armies passed and repassed and fought their battles. The first invasion of Kālā Pahār can be traced by the tombs of his captains, who fell in battle, and were therefore dignified with the title of Shahīd or martyr by the fanatical Musalmāns. One of these captains, Hitam Khān, was buried at Garhpadā, where the Bhuiyās enjoy a rent-free grant on condition that they keep up his shrine; at Bastā lies another, Shāh Husaini Shahīd; at Rāmchandrapur, south of Garhpadā, is a third, Muhammad Khān Shahīd; and at Remunā, a fourth, Gulāb Shāh Shahīd, from whom the large bazar of Shāhji Patnā takes its name. Kālā Pahār did not, however, make a long stay in the country. In the year following the conquest he took his departure from Orissa, and Sulaimān Karānī entrusted the government of the country to a deputy. But he left behind a large number of his turbulent followers, many of whom settled at Kasbā, a suburb of Balasore, and at Bhadrakh and Dhāmnagar, where their descendants are still to be found.

Dāūd Khān, the second son of Sulaimān Karānī, who succeeded to the governorship of Bengal, threw off all allegiance to the Emperor of Delhi and declared himself independent. In the struggle which ensued, Dāūd Khān was driven out of Bengal by the forces of the Emperor Akbar under Munim Khān, and fled to Orissa. Here he remained some time scouring the country between Cuttack and Jaleswar (Jellasore), but at last Munim Khān, accompanied by the celebrated Todar Mal, Akbar's great finance minister, forced him to give battle. The armies met on the northern bank of the Subarnarekhā near the village of Tukaroi, where the battle-field is well known to the villagers, who still call it Mughalmāri or the slaughter of the Mughals; it runs westward for some 6 miles from Jaleswar towards the river. Dāūd Khān, was completely defeated and fled to Bhadrakh, and when Munim Khān pressed after him, continued his flight to Cuttack, where a peace was concluded, Dāūd Khān renouncing all claim to Bengal and Bihār and receiving Orissa as a fief from the Mughal Emperor. He was left in possession of Central Orissa as far as the Baitaranī,

* Notes on the History of Orissa, by J. Beames, J. A. S. B., Vol. lii, 1883.

but the territory comprised in the Balasore district was annexed to the *sūbah* of Bengal, and placed in charge of two *thānādārs*, who were stationed at Jaleswar and Bhadrakh.

Afghān rebellions.

For some years after this, Balasore, lying as it does between Cuttack and the frontier of Bengal, became the theatre of the fighting between the Afghāns of Orissa and the Mughal forces. None of the battles were very decisive, nor are there traces of the battle-fields, though many places with Musalmān names in various parts of the district testify to the settlement of Afghān and Mughal invaders. In 1575 Dāūd Khān again revolted and overran Bengal; but next year the Afghāns were defeated, Dāūd Khān was slain, and in 1578 Orissa became a province of Akbar's empire. No sooner had Todar Mal, who had effected the annexation, left Orissa, than the Afghān remnant sallied forth from the hills in which they had taken refuge, and in 1580 the Province again revolted. The sway of the Afghāns was extended as far north as the Rūpnārāyan river, but on the defeat of their leader, Kutlu Khān, in 1583, Balasore was left unmolested by these turbulent adventurers. It was not, however, until Akbar sent another Hindu general, Mān Singh, against them that any settled government was introduced. In a great battle, fought like Mughalmāri, on the northern bank of the Subarnarekhā, in 1592, he crushed the Afghāns, who were then driven out of Jaleswar and forced back to Cuttack, where they submitted to Mān Singh. From that year Orissa was regarded as a regular part of the Empire, and the imperial commissions appointing a Governor of the Lower Provinces regularly include "Bengal, Bihār and Orissa."

The Afghāns, though defeated, were not crushed. In 1598 they rose under Usmān Khān, during the absence of Mān Singh, defeated the Imperial troops at Bhadrakh, occupied a great portion of Western Bengal, and again obtained possession of Balasore as far as the Subarnarekhā. Mān Singh, however, returned and defeated Usmān Khān, who thereupon retired to Cuttack. Thence he again sallied forth in 1611 with an army of 20,000 horse, and encamped on the banks of the Subarnarekhā. After a fierce struggle, which appears to have taken place among the marshes near Rājghāt on the southern side of the river, Usmān was killed, his troops fled in disorder, and Shujaat Khān, the leader of the Mughals, entered Orissa as a conqueror and finally annexed it to the Mughal empire. This defeat of the Afghāns virtually ended the struggle between them and the Mughals, and Orissa remained a province of the Empire till 1751 when it passed to the Marāthās.

Internal administration.

During these long years of fighting, in all their constant advances and retreats, the Afghāns appear to have regarded Bhadrakh as their frontier, while Jaleswar was the frontier of the Imperialists ; and the intermediate country was a debateable ground, the cock-pit of the rival armies. With the peace which was now established, Balasore began to develop. When the Afghāns ceased to desolate the land, it rapidly recovered ; cultivation expanded, and was further promoted by the grant to old soldiers of the empire of *jāgīrs*, such as that at Dhāmnagar, where there is a populous Muhammadan colony, the descendants of the original grantees. From this time too dates the rise of Balasore as a commercial town ; the cloth woven there began to be famous; and a few years later the English established themselves as traders in the district. It was a favourite residence of the Muhammadan governor of Shujā-ud-dīn, Mīr Takī Khān (1725-34) who built the masonry tank and reservoir, and the mosque and gardens known as the Kadam Rasūl. He is also said to have had a hunting place at Remunā, 5 miles from Balasore under the Nīlgiri Hills, where there are extensive ruins of Muhammadan tombs and buildings ; the neighbourhood still abounds with game, and the name, which means a hunting ground, confirms the legend.

Muhammadan Governors.

During the last half century of the Mughal rule Orissa again became a scene of anarchy. The Governor of Bengal, in despair of being able to get in its revenues by civil administrators, made it over to soldiers of fortune, who collected the land tax at the spear point, and kept back as much of it as they dared from their distant master. As the latter strengthened his power, however, he sent his son-in-law to govern Orissa and annexed the northern part to Bengal, the river Subarnarekhā thus forming the frontier between the two Provinces ; but the internal troubles which beset the Mughal Government prevented anything like a settled administration, and the peasantry were left at the mercy of a succession of rude soldiers, who harried the Province and got together as much plunder as their brief tenure of office allowed them. In 1740 Alī Vardi Khān became Nawāb or Viceroy of Bengal ; and the Governor of Orissa having refused to acknowledge his authority, he marched south to crush him, and found his forces drawn up in battle array at Balasore. Mr. Beames* has identified the place where this battle took place with a spot about a mile north of the civil station, where a long ridge of high land, then clothed with woods, slopes down into the marshes between the Nuniājori and Burābalang rivers near the villages of Hājīpur and Dohopāra.

* Notes on the History of Orissa, J. A. S. B., Vol. lii, 1883.

The river surrounds this land on three sides, and in so strong a position Murshid Kulī Khān, the Governor of Orissa, might long have defied his adversary, who, being cut off from the town, could get no provisions and was in much distress. Murshid's son-in-law, however, rashly moved out to attack the Nawāb, and the result was a complete victory for the latter.

Marāthā invasions.

Shortly after this, theh Maratās burst down upon Orissa, at the invitation, it is said, of Mīr Habīb, the treacherous Dīwān of the Governor. Driven back from Bengal by Alī Vardi Khān, they made a stand at Balasore, and a battle took place on the high land now occupied by the civil station of Balasore, a little to the south of the camp of Murshid Kulī Khān mentioned above. The battle went against the Marāthās, who then retreated on Cuttack, and thence through the hills to Berār, plundering everything they could lay hands upon. In the cold weather of 1744 Raghujī sent another army of 20,000 horse into Orissa. Alī Vardi Khān met them in Midnapore, and being unable to cope with them in the field, proposed negotiations, invited Bhāskar Pandit, the Dīwān of Raghujī, and the principal officers to an entertainment, and there murdered them. Deprived of its leaders, the army retreated in confusion through Balasore, where they were much harassed by the peasantry, who maintained a guerrilla warfare and cut off all stragglers without mercy.

In 1745 Raghujī took his revenge. Marching down upon Cuttack, he overran the country, and refused to leave unless he was paid three crores of rupees. He then advanced to Kātwa, but was met and defeated there by Alī Vardi Khān, on which he returned to Berār, plundering as usual on the way. After this, he was, fortunately for Balasore and Orissa, engaged in wars and intrigues elsewhere, though stray bands of Marāthās made their appearance in the country from time to time. But in 1750 Janojī Bhonsla, the son of Raghujī, was sent into Orissa with Mīr Habīb, and the two commenced the old system of plunder and extortion. Alī Vardi Khān now lost all hope of resisting the marauders, and gave up to them the whole province south of the Subarnarekhā, as well as the *pargana* of Patāspur north of that river, the Marāthās holding the province as security for the *chauth* or tribute always claimed by them from conquered provinces. Next year, during Janojī's occupation of Orissa, the traitor Habīb met his deserts. He was charged with embezzlement by Janojī, who made him prisoner in his camp at Garhpadā, on the borders of Mayūrbhanj, 15 miles north of Balasore. Habīb having tried to escape with a few followers, was hacked to pieces by the guards placed over him. The place, where his camp

was pitched, is a small bazar and village in *pargana* Garhpadā, which is still known as Habībganj. In 1755 the whole country was finally and conclusively made over to the Marāthās, and from that date till 1803 Orissa remained a Marāthā province.

THE MARATHA RULE.*

Wretched as the state of Orissa had been under the Mughals, a half-century of deeper misery remained for it under the Marāthās. The Marāthā prince had his capital or standing camp at Nāgpur in Central India, and waged incessant war upon his neighbours. His deputies, who were constantly changed, and imprisoned on their recall, struggled to wring out of Orissa—the only peaceful Province of his kingdom—a sufficiency to supply the military necessities of their master. All the offices connected with raising the revenue were sold to the highest bidder at the Marāthā court at Nāgpur. Every deputy who came to Orissa had ruined himself in order to buy his appointment, and he well knew that the time allowed him for rebuilding his fortunes would be but short. From the hereditary Orissa Prince he managed to wring about £130,000 a year; the smaller proprietors he ousted without mercy from their lands; and he laid heavy burdens upon the pilgrims of Jagannāth. By degrees these atrocities began to work their own cure. The peasant militia of Orissa, strong in the network of rivers, defied the Marāthā troops; and the collection of the revenue in the hilly frontier simply reduced itself to an annual campaign, 'in which,' says Mr. Stirling, 'to say nothing of the expenditure of blood and treasure, the Marāthās were nearly as often worsted as successful.'

There appears to be no trace of anything like a settled administration. The Marāthā cavalry harried the country at stated periods each year, and departed with the spoil; and the internal organization of the village communes formed the only sort of civil government. Each village had its semi-hereditary, semi-elective head, who ruled the hamlet and represented it to the Marāthā receiver. When the extortions of the latter passed all bounds, the village temporized till it could get its headman out of his clutches, and then the whole community decamped with their cattle into the jungle. But though the swamps and forests yielded an asylum from the Marāthā spearmen, the peasantry could not fly from the consequences of their own flight. The land lay untilled, and any failure of the rice crops produced a famine. Within seven years two terrible scarcities afflicted Orissa. The famine of 1770 was intensified by a mutiny of foreign troops. While the people were dying by hundreds of thousands on every road side, the

* This account of the Marāthā rule is condensed from that given in Hunter's Statistical Account of Cuttack.

Marāthā soldiery threw up the last vestige of control, and for many months ranged like wild beasts across the country. Seven years afterwards, 1777, another great famine ensued; and as the Marāthā power at Nāgpur decayed, each party into which it split separately harried and plundered the Province.

EARLY ENGLISH SETTLEMENTS.

From this terrible oppression the people were delivered by the conquest of the country by the English in 1803. The English were, however, no strangers in the land, for they had settled at Balasore some 150 years before. The following account of this early settlement is taken from Hunter's History of India.

"The popular story of our settlement in Bengal is a pretty one. A patriotic ship-surgeon, Mr. Gabriel Boughton, having cured an imperial princess of a severe burn in 1636, would take no fee for himself, but secured for his countrymen the right to trade free of duties in Bengal. It is true that Mr. Boughton obtained an influence at the Mughal Court, but he did not go there until 1645, and meanwhile the English had fixed themselves on the Bengal seaboard by no romance of Imperial favour, but by sufferings and endurance of a deeper pathos. The draft-treaty proposed by Sir T. Roe in 1616 had mentioned the ports of Bengal as places free to the English, and visions of trade with that distant province flitted before the Company's servants of Surat. Bengal was to be opened to us, however, not by any plunge of the Surat Council into the Eastern *terra incognita*, but by the gradual advance of the English up the Madras coast. The "Golden Phirmaund" of the Golconda King in 1632 encouraged the Masulipatam factory to send a trading party northward. Accordingly in March 1633, eight Englishmen started in a native junk, 'with a square sail, an oar-like rudder, and a high poop with a thatched house built on it for a cabin,' and rolled up the Bay of Bengal till they reached the mouths of the Great River of Orissa. There, on April 21, Easter Day, 1633, they cast anchor inside the mud-banks of the Mughal customs-station of Harishpur. The Hindu Port-officer or "Rogger" (our sea-captain's rendering of Rājā) behaved with Indian courtesy to the strangers. But presently a Portuguese frigate steered into the haven, anchored close to our half-decked boat, and got up a scuffle on shore, 'where our men being oprest by multitudes had, like to have been all slaine or spoyled, but that Lucklip the Rogger (*i. e.*, Lakshmi the Raja) rescued them with two hundred men.'

"Ralph Cartwright, the chief merchant, leaving the boat in the joint protection of its crew and the friendly Port-officer, proceeded with a small deputation inland to the Moslem Governor of Orissa at Cuttack, at the delta-head of the Mahanadi or Great

River. Their mission was to 'the Nabob of Bengal,' but our simple explorers looked on one native ruler as much the same as another, and they thought that the Governor of Orissa would serve their purposes equally well. The kindness which they met with on their few days' journey up the delta—kindness which Hindu hospitality showed to any stranger from a distant land who came in peace—impressed them deeply. The imposing etiquette of the Court of Cuttack quickly brought them back to a sense of their position. The Moslem Governor of Orissa was merely a deputy of the Mughal Viceroy of Bengal. But he was a polite Persian who knew how to combine courtesy with state, and with a certain simplicity, half military, half religious. By day the lord of a magnificent fortress-palace, at night he slept like a soldier in his tent, 'with his most trusty servants and guards about him.' He received the three Englishmen in his Hall of Public Audience amid oriental splendour; affably inclined his head to Mr. Cartwright; then slipping off his sandal offered 'his foot to our merchant to kiss, which he twice refused to do, but at last he was fain to do it.' Cartwright presented his gifts. Before, however, he could finish his petition for trade, 'the King's almoner' gave the signal for prayer, the glittering Court knelt down with their faces to the setting sun, and business ended for the day. Meanwhile, the palace had been lighted up with a blaze of countless tapers, and the English returned to the quarters assigned to them in the adjacent city of Cuttack.

"The picturesque negotiations which followed read like a tale out of the 'Arabian Nights.' Cartwright came with two distinct objects: redress for the Portuguese attack within a Mughal harbour, and a license for trade. The Portuguese Captain lodged a counter-complaint against our crew, and each of the litigants purchased the aid of powerful officials. Cartwright asserted his title to seize the frigate on the bold ground 'that all such vessels as did trade on the coast and had not a pass either from the English, Danes or Dutch, were lawful prize.' The Portuguese Captain could only produce a pass from his own nation, which availed nothing, as the Mughal Government looked on the Portuguese as pirates, and had in the preceding autumn sacked their chief settlement in Bengal. Accordingly the Governor 'made short work with the matter, and put us all out of strife presently; for he confiscated both vessel and goods all to himself.' This was too much for the English temper. To the astonishment of the courtiers 'our merchant rose up in great anger, and departed, saying that if he could not have right here, he would have it in another place. And so went his way, not taking his leave of the

D

Nabob or of any other. At which abrupt departure they all admired.'

"The Governor, rather amused than offended by his audacity, gave him three days to cool down, and then ordered him into the Presence. Cartwright knew that his life and those of his companions depended on a nod from the State Cushion. Yet 'with a stern undaunted countenance' he declared that His Highness 'had done his masters of the Honorable Company wrong, and by his might and power had taken their rights from them, which would not be so endured.' This was a new language to the polite Persian. He inquired of the Indian merchants before him what sort of a nation it was that bred a man like that. They answered that it was a nation whose ships were such that no 'vessel great or small' could stir out 'of His Majesty's dominions; but they would take them.' 'At these words the King said but little, but what he thought is beyond my knowledge to tell you.'

"The result soon appeared. The Governor or 'King' kept the Portuguese frigate, but on May 5, 1633, he sealed an order giving the English an ample license to trade. It was addressed to Ralph Cartwright, merchant, and granted him the liberty to traffic and export, free of customs, at any port of Orissa, and to purchase ground, erect factories, and build or repair ships. We had now, by the circuit of the Indian coast, re-entered the provinces of the Mughal Empire and there is no question of fortifications, as on the unsettled seaboard of Southern India. All disputes were to be brought before the Governor in person and decided by him in open darbar, 'because the English may have no wrong (behaving themselves as merchants ought to do).'* Next day the Governor feasted the Englishmen and sent them contented away. They built a house of business at Hariharpur, on a channel half way down the delta, and, as they fondly hoped, beyond the malaria of the swamps. Next month, June 1633, Cartwright founded the factory of Balasore further up the coast, and near the present boundary between Orissa and Bengal. The Masulipatam Council gave loyal support by sending on to him the 'Swan' with her whole cargo, just arrived from England; and

* The beginning of our trade with Orissa is usually ascribed to a *farmān* granted to the English a year later by the Emperor Shāh Jahān, confining them to Piplī near an old mouth of the Subarnarekhā river. Exhaustive enquiry renders it doubtful whether such a *farmān* was ever issued; and whether any English factory was built at Piplī under its authorisation. Captain Alexander Hamilton, however, who knew the Indian coast well between 1688 and 1723, speaks of an English factory as formerly existing at Piplī, whose river had by that time silted up. The explanation probably is that our Balasore factory had at one time an agency at Piplī, which it soon abandoned. See also article on Piplī in Chapter xv.

on July 22, 1633, she anchored off the Mughal customs-station of Harishpur. There she broke the silence of the swamps by firing three guns, but receiving no answer, sailed up the coast till she found Cartwright at Balasore.

"Everything seemed to smile on the adventurers, and they projected outlying factories at Puri in the southern extremity, and at Pipli on the northern boundary, of the Orissa seaboard. But their brief prosperity ended in disaster and death. The cargo of the 'Swan,' chiefly broadcloth and lead, found no purchasers at Balasore, and lay for nearly a year unsold. The luscious fruits and cheap arrack of Orissa formed temptations which the English sailor could not resist, and during the rainy season the deadly malaria of the swamps crept round their factory in the mid-delta as round a beleaguered city. Before the end of the year, five of our six factors in Orissa perished; the mortality among the sailors was terrible; and a second English ship sent thither had to make her way to Madras with most of her crew stricken down by fever. It is difficult for us now to realise the miseries which our countrymen, with their English habits of eating and drinking, suffered in the stifling forecastles and cabins of their ships, and in the mat-huts which formed their sole shelter on shore. Even a third of a century later, when they had learned in some measure to accommodate their dress and manner of living to the climate, two large English ships, after one year of the climate of Balasore, were unable to put out to sea 'because most of their men were lost.'

"With their goods unsaleable and factors and seamen dying around them, the survivors clung through the rainy season of 1633 to the footholds they had won on the Orissa coast. But two new scourges were added to their miseries. The Portuguese pirates from the other side of the Bay of Bengal swooped down on the river mouths: a Dutch fleet from the Madras coast and the Eastern Archipelago blockaded the roadsteads with pinnaces of ten to sixteen guns strengthened by an occasional ship. Cartwright had to give up the idea of planting agencies at the northern and southern extremities of Orissa; his central factory midway down the delta fell into decay, due in part to the silting up of the river; and soon all that remained to the English in Orissa was the unhealthy settlement at Balasore. The parent factory at Masulipatam had enough to do to keep its head above the all-engulfing wars between the inland king of Golconda and his half-subdued coast-rajas. The company at home, in the grip of Court cabals, looked on the Orissa settlements as a new and unprofitable burden which had been thrust upon it. 'No one

cared about them; they were distant, unhealthy, dangerous.' In 1641 the ship 'Dyamond' was ordered thither to pay off their debts and bring away the factors.

"But in the summer of 1642, after nine years' despairing struggle for existence, the tide began to turn. Francis Day, who had just founded Madras, visited Balasore and protested that it 'is not to be totally left.' After all, it lay within the Mughal Empire, whose settled order contrasted with the wild dynastic confusion further down the coast. The Madras Council shrank, however, from the risk, and referred the question home. Meanwhile the Company in London was exchanging the makeshift rule of Charles for the control of Parliament. In 1650 it resolved to follow the example of the Dutch and to found a settlement in Bengal itself. Yet the perils of the Hooghly river, then unsurveyed and without lights or buoys, rendered it unsafe for large vessels. The Madras Council resolved therefore to make Balasore a port of transhipment, whence cargoes should be carried in native boats round to the Gangetic delta, and so up its south-western channel, the Hooghly, to Hooghly town, about a hundred miles from the sea."

In 1657 the Madras Council for the second time resolved to withdraw their factories from the Bengal seaboard, but the settlement was saved by the policy of Cromwell, who in that year reorganized the Company on a broader basis. A commission to Bengal put down the malpractices which had sprung up and re-established the trade. Hooghly became the head agency in Bengal, and Balasore was an out-factory under its control, which was administered by a chief with three assistants or councillors, a regular subordination of authorities, and a code of rules for the conduct of life and business.

Other European settlements.

The Portuguese had, however, established themselves in the district some time before the English appeared there. They had effected a settlement at Piplī as early as 1599, and that place was their chief port on the seaboard. It was also a centre of the Arakanese pirates, who were in league with their Portuguese and whose attacks crippled the English trade. Their sloops haunted the bay, and in 1633 when the Swan was in the Bay of Bengal, some of them suddenly attacked her boat as it was being sent ashore for water, killed three of her men, and carried off the rest to Piplī, which was a great slave market. The Portuguese had engaged to keep the Bay of Bengal clear of pirates, but shamefully neglected their promise, and this was the cause of their downfall. Furious at their piratical raids and their refusal to release the numerous slaves in their service, Shāh Jahān

at last determined to make an example of them, and in 1632 besieged and took their settlement at Hooghly, enslaved or circumcised the male survivors, and sent the fairest maidens to the harems of the Imperial court. The Dutch at once stepped into the place of the fallen Portuguese and established themselves at Piplī. The English, on reaching Orissa a year later, did not at first venture to struggle with them or even with the Portuguese, who still retained a certain amount of power. The ship which the first English adventurers met at Harishpur hailed from Piplī; and as we have seen, the Portuguese 'with the assistance of some of the ribble-rabble rascals of the town' nearly made an end of them there. The English appear, however, to have been the first in the field at Balasore, where the Dutch soon followed them. It is not known when the latter first made their settlement there, but it appears that they acquired a plot of land from the Nawāb Matakīd Khān, the Governor of Shāh Shujā, who was appointed in 1645. The first mention of them occurs in 1664, when there was a dispute with the English about their respective boundaries, which was settled by the Nawāb Shaista Khān. Shortly afterwards, about 1676, the Danes also came to Balasore, and about the same time the French set up yet another factory in the town.

Capture of Balasore.

In 1686 the English settlement at Balasore was again nearly abandoned. The Court of Directors, enraged by the way in which Shaista Khān, the Viceroy of Bengal, oppressed their servants and harassed their trade, and ignorant of the strength and resources of the Mughal empire, resolved to make war upon it. They accordingly sent out a fleet of 10 ships under Nicholson, with orders to proceed first to Balasore, remove the Company's servants, and break up the factory. He was then to capture Chittagong, advance up the Ganges to Dacca, and there extort a treaty from the Viceroy by force of arms. This wild scheme was doomed to ignominious failure, for Nicholson, under stress of bad weather, was unable to put in at Balasore, and was driven northwards to the Hooghly. Here he found the English fortunes at a very low ebb. The Nawāb had driven them out of Hooghly, and, headed by Charnock, they were taking refuge in the swamps of Sūtānuti on the present site of Calcutta. The Nawāb sent an army to crush this new settlement, and the English, being forced to abandon it, moved in 1687 to Hijilī.

Charnock now resolved to take some reprisals. "The first blow was struck by the ships at Balasore. The port is situated on the Burābalang, a sinuous river doubling back upon itself in numerous loops, with an awkward bar a little more than 2 miles from its mouth. Some way up the stream occurs a

projecting promontory, which frequently appears in the records of Charnock's time under the name of the Point of Sand. The point commands the river for miles, and was armed by the Mughal rulers with a fort and batteries. West of it stood the old town of Balasore; beyond this, still further up the stream, was the rapidly growing new town where the Europeans had established their factories. The hostile measures of Charnock had alarmed the whole country round. New Balasore was alive with horse-soldiers and foot-soldiers, and every Mughal's house was turned into an improvised fortification. The ships were drawn up in dry docks of mud under the protection of the Point of Sand. The batteries were armed to the teeth with guns taken out of the vessels. But these preparations were of no avail to stay the attack of 170 British soldiers and sailors. In a single night the fort was taken with small loss. On the following day, the river being clear of hostile ships, the English easily marched up to the new town, and after a short struggle made themselves masters of the whole place, burning and destroying all before them. For two days new Balasore was given over to the spoilers. They broke into the king's custom house; they plundered the private merchants; and, returning to the old town, burnt all the shipping as it lay in the docks. Two vessels arriving at the mouth of the river, one belonging to the Prince, and the other to the Nawāb, with four elephants on her, were seized and made prizes. Satisfied that enough had been done to vindicate their honour in the eyes of the people of Balasore, the English determined to leave, but they were not allowed to get off scot-free. While waiting at the mouth of the tiver for a favourable wind, a long boat with a crew of 17 men, was surprised 2 miles up the country, and all the men taken except one. The heads of three of the prisoners were cut off and stuck up at Hooghly."*

Fortunately for the English, this little filibustering expedition was passed over with mild contempt by the Mughals; the Emperor Aurangzeb, who was then engrossed by his great wars in Southern India, is said to have contented himself with merely calling for a map in order to discover where Hooghly and Balasore were situated.

After this, Charnock moved up the Hooghly to Sūtânuti, where he again began to build a factory. Here in 1688 the English were found living in a few hovels by Heath, who came from England with orders to take off the survivors and sail for the conquest of Chittagong. Having taken them on board, Heath, a

* Wilson's Early Annals of the English in Bengal, Vol. i, pp. 106, 107.

hot-headed swashbuckler, made for Balasore; and after some fruitless negotiations placed the bulk of his troops on small sloops and ascended the Burābalang. The next day Charnock and those with him in the ships could hear the rattle of the English musketry answered by the booming of the enemy's pieces of ordnance. In less than three hours the great guns were silenced, and flames and smoke were seen rising up inland. Boats bringing back news of the fight soon followed. The English had landed under the cover of some clumps of coco-palms, dispersed a body of horse and foot, and with a rush carried the great battery which guarded the river and the Point of Sand, on which they had hoisted the king's flag. All the artillery and stores had fallen into their hands, and they were already shipping off the ammunition. The victors were resting on the Point, and intended to march up to new Balasore that night. Their loss was only one killed and six wounded. In the attack on the town which took place next day the soldiers, according to the peace party, committed great excesses. They made no difference between friends and foes, Christians and non-Christians, men and women, but ill-treated all alike. They failed, moreover, to rescue their countrymen, for the Governor on hearing of their approach burnt the English factory, and carried off the factors up country. They were never heard of again, and Heath sailed away to Chittagong.*

Balasore remained unoccupied by the English for some years after this, but they apparently returned after 1690, when Aurangzeb granted a new *farmān* for the re-establishment of their factories in Bengal. There is, however, no record of their fortunes until the land began to be overrun by the Marāthās. Thenceforward the same tale of the injury to trade and of the desolation caused by the Marāthā raids is constantly repeated. In 1748 we find Mr. Kelsall, the Resident at Balasore, reporting that the Marāthās had attacked the factory at Balrāmgāchi at the mouth of the Balasore river, but that they had been repulsed by the Nawāb, who had pursued them into Cuttack. In 1750 the Resident complains that owing to the disturbances he could not "purchase any ready-money goods as the weavers or greater part of them have been obliged to abscond." Three years later he sent a requisition for 1,500 or 2,000 maunds of rice because of the great scarcity caused by the savages of the Marāthās who had plundered Balasore and then gone off into the "Nellegreen" (Nīlgiri) hills. In 1757, according to one account, the English fugitives took refuge at Balrāmgāchi on the capture of Calcutta by Sirāj-ud-daula.

* Wilson's Early Annals of the English in Bengal, Vol. i, pp. 120, 121.

Marāthā Governors.

In 1756 the first Marāthā Sūbahdār, Sheo Bhat Sāntra, was sent to administer the Province, and after him there was a succession of Deputies who did their best to wring what they could out of the people. The town of Balasore itself seems, however, to have been benefited by the residence of the Marāthā officials. The suburb of Bhāskarganj was apparently named after Bhāskar Pandit, a Marāthā Faujdār, who was captured and carried off to Nīlgiri by the refractory Rājā of that small principality. Another Faujdār, Lāla Kishor Rai, is said to have founded the Lāla Bazar near Bārabāti in the town, and to have built a Bāraduāri or twelve-doored palace near that place; Motīganj, now the centre of the town and the principal market place, was established by Motīrām about 1785 to 1790; and the last Faujdār, Mayurā Pandit, commonly called Moro Pant, lived on the site where the Jagannāth temple now stands.

Outside the limits of the town, however, the peasants were at the mercy of rapacious tyrants, who stripped the country bare. The people still remember the times when bands of Bargis, as the Marāthā horse were called, ranged through the country-side, ravaging and plundering under pretext of collecting revenue. They were not bloodthirsty, their object being merely plunder, but of that they were insatiable, and their methods of securing it were barbarously cruel. All cases were tried verbally, no record of any kind being kept, and culprits were sentenced to be tied to the heels of a horse, which was then flogged through the streets. Others were bound, smeared with sugar, and exposed to the attacks of ants and other insects. Others again had their fingers tied together, and wedges of iron inserted between them. It is small matter for wonder that to this day the peasant's name for anarchy and oppression is "Marāthā Amal," and that when the English appeared upon the scene, the Marāthās were left to fight their own battles unsupported by the people.

English Conquest.

When war at last broke out with the Marāthās, it was resolved, as a part of the general operations, to drive them out of Orissa, and a small force of 3,000 men under Colonel Harcourt marched from Ganjām and took the town of Cuttack. At the same time, a detachment of 500 native troops, 21 artillery-men and four 6-pounders under Captain Morgan sailed from Fort William for Balasore. They arrived in three ships, and landed at Jampadā near Gabgāon, a village adjoining old Balasore on the east, and about 3 miles below the present town. They then advanced along the bank of the river, and owing probably to the difficult nature of the ground, were not opposed by the Marāthās till they got close to Balighāt just below Bārabāti.

Here a band of horsemen bore down on them, and in the skirmish which ensued, one European soldier was killed. The English then rushed forward and attacked the Marāthā fort, of which they soon took possession (September 21st, 1803). The Marāthās appear to have made but a faint resistance, and quickly disappeared. Immediately after this, a drum was beaten in all the bazars announcing that the English had taken possession of the province and would protect all who behaved themselves peaceably. Morgan then sent on a small detachment, which dislodged a party of the enemy and occupied Soro, and Mayurā Pandit retreated incontinently to Cuttack, plundering the ryots as he went. Another detachment of troops under Colonel Fergusson then moved from Jaleswar, arrived at Balasore without any opposition, and marched on to join the main body at Cuttack. "The inhabitants," according to a despatch* of the Marquess Wellesley, "afforded every assistance to the British troops on their march and expressed the utmost satisfaction in the prospect of being speedily relieved from the oppressions to which they had been uniformly subjected by the Marāthā Government and of being placed under the protection of the British power." A few days afterwards this prospect became a reality, for with the capture of Cuttack on the 10th October 1803 the whole of Orissa passed under the British rule.

FORMATION OF THE DISTRICT.

Balasore was made a centre of quasi-military administration for some time after the conquest, Captain Morgan being placed in charge of the district, at first merely as the officer commanding at Balasore, but subsequently as Collector, Magistrate, and Salt and Customs Agent. Under him there was a native *āmil* or collector of revenue at Balasore, and three more at Soro, Bhadrakh and Dolgrām. He exercised authority between the sea and the hill States, but to the north all the *parganas* beyond Nāngaleswar and Satmalang formed part of the old Bengal district of Midnapore, and to the south the limits of his authority were ill-defined. In 1804 he made over charge to Mr. Ker, who was designated the Collector and Magistrate, Northern Division of Cuttack, and appears to have exercised jurisdiction as far south as the Brāhmanī river. Mr. Ker proceeded to make the first settlement of the country, but this settlement did not go beyond Bastā to the north, as Jaleswar was under Midnapore, and the country east of that place came under a separate arrangement. This tract of country between it and the sea was called the "Marāthā Mahāls" and consisted of the *parganas* of Patāspur, Kamardachaur and

*A Selection from Wellesley's Despatches, by S. J. Owen (1877), p. 380.

Bhogrāi, together with the smaller *mahāls* of Shāhbandar, Napochaur and Kismat Katsāhi. This charge was abolished 12 months after its formation, for in 1805, after completing this settlement, Mr. Ker made over charge to Mr. Webb, who was appointed Collector of all Orissa, or as it was called the district of Cuttack. For 24 years after this the whole Province formed but one district, having its head-quarters at Purī until 1816, when Cuttack was made the capital. From 1805 to 1821, Balasore was administered from Cuttack, and had no separate revenue officer; but in 1821 a Joint Magistrate was stationed at Balasore as the deputy of the Magistrate of Cuttack, his duties being chiefly the trial of criminal cases and the superintendence of police. In 1827 Balasore was constituted an independent Collectorate under Mr. H. Ricketts; and in 1828 Jājpur and Bhadrakh were attached to it, Jājpur being subsequently transferred to Cuttack. On the north, a perplexing series of transfers and retransfers of *parganas* or fiscal divisions went on for a long time between Balasore and Midnapore, some being transferred backwards and forwards as many as three times. The district finally acquired its present dimensions in 1870, when the northern boundary was defined, and the Baitaranī and Dhāmra rivers were made the southern limit of Balasore.

CHAPTER III.

THE PEOPLE.

GROWTH OF POPULATION.

Early estimates.

PRIOR to 1872 no regular census of the district had ever been taken; but several rough attempts were made from time to time to estimate the number of inhabitants. After the great cyclones of 1831 and 1832, in which more than 22,000 persons are said to have perished, the population was estimated at 450,000. Subsequently a large area was transferred to the district from Midnapore, and the village *chaukīdārs* were ordered to report the number of inhabitants in each village. The result of this enumeration was to disclose a population of 463,750. A rough census of the inhabitants was next taken in 1840 for the Survey officers, which gave an estimated population of 651,000 souls. In 1865 the population was estimated at 732,000; and after the famine of 1866, the surviving population was estimated at 485,000.

Census of 1872, 1881 and 1891.

The first census which can be regarded as in any way approximating to the truth was that of 1872, by which time the population had increased materially, owing both to the return of those who had fled from their homes during that great calamity, and to the growth natural to a people recovering during a series of prosperous years from the famine which had decimated their numbers. This census disclosed a total population of 770,232 souls with an average density of 373 persons to the square mile. If the estimate made in 1866 was correct, the advance was no less than 59 per cent. during the succeeding six years, but this rate of growth would be so phenomenal that there can be little doubt that that estimate was very much too low. In 1881 it was found that the population had increased by 22 per cent., and amounted to 945,280, the pressure of the people on the soil having risen to 453 persons to the square mile. This increase was due partly to improved enumeration and partly to a recovery from the losses caused by the terrible famine of 1866. The next decade witnessed a greatly diminished rate of progress, the total number of persons recorded in 1891 being 994,675 or 5 per cent. more than in 1881. This increase was very evenly distributed all over the district except in Jaleswar and Chāndbāli thānas. In the former thāna,

where there had been a decade of malarial fever of a very malignant type, the population was practically stationary; in Chāndbāli there was an increase of no less than 11 per cent. owing to the development of trade and the reclamation of waste land.

Census of 1901.

During the next decade conditions were generally favourable, and the only disaster was a high flood in 1900, which destroyed crops and cattle, but caused very little loss of life. The result was that in 1901 the population had increased to 1,071,197 or by 7·7 per cent. since 1891, in spite of a loss of from 1 to 2 per cent. in consequence of emigration. The population of the Chāndbāli and Bāsudebpur thānas showed the greatest development; both these thānas, which are on the sea-shore, contain much land fit for cultivation, and the absence of destructive cyclones has encouraged reclamation. Dhāmnagar in the south-east showed a slight loss of population, which, however, is probably only temporary. It was due to the destruction of the crops by floods shortly before the census, which caused many of the males to go to other districts in search of work, in order to tide over their temporary difficulties. This explanation is confirmed by the figures for each sex, the falling off being confined to males, while the female population is greater than in 1891. Throughout the rest of the district the rate of increase was uniform, varying from 7·9 per cent. in Jaleswar to 9 per cent. in Bhadrakh.

GENERAL CHARACTERISTICS.

Density.

The average density of population is now 514 persons to the square mile, and it will thus be seen that the pressure of the people on the soil has increased very greatly since 1872, when there were only 374 persons to each square mile. Its extent is determined very largely by the physical aspects of the different portions of the district. Balasore at its greatest width is only 40 miles broad from east to west, and every thāna contains considerable areas of saline soil or uncultivated laterite, there being no police circle which is not either littoral or submontane. The density is as high as 662 and 591 persons to the square mile in thānas Bhadrakh and Dhāmnagar, which contain only a little hilly country and march with the fertile central plain of Cuttack; it is as low as 302 persons to the square mile in the maritime police circle of Chāndbāli, a large part of which is a prairie of high grass merging on the sea-coast in a mangrove forest like the Sundarbans of Eastern Bengal. Nowhere, however, has the growth of the people been greater than in this thāna; in 1872 it supported only 178 persons to the square mile, and the density is therefore just 70 per cent. as great as it was 30 years ago—a result due to the development of the port of Chāndbāli and to the expansion of cultivation generally.

Migration.

From the fact that in the census of 1901 the number of persons born in Balasore who were enumerated elsewhere in India was 51,760, and that only 29,470 persons born elsewhere were enumerated in this district, it will be apparent that the number of emigrants is far in excess of the number of immigrants. Large numbers are attracted to the sparsely inhabited Native States forming the western boundary of the Division, where much arable land is still unoccupied, and settle there. Others go to Calcutta and its neighbourhood to serve as *pālki*-bearers, *darwāns* and labourers; natives of the district are found working as cooks and domestic servants throughout Bengal; and numerous emigrants go to the Sundarbans as cultivators and field-labourers. This overflow is, however, mostly temporary or periodic, and its most noticeable feature is the very small proportion of women accompanying the men, only 2,000 of the 19,170 emigrants enumerated in distant parts of the Provinces being women. The men mostly go for a short time in the slack season when agricultural operations are at a standstill, and return with their savings at the breaking of the monsoon in order to cultivate their ancestral holdings. The advent of the railway has naturally afforded far greater facilities for communication with the outside world than previously existed, and has greatly stimulated migration. Natives of the district employed in Bengal return home at much more frequent intervals than formerly, and, on the other hand, the number seeking employment elsewhere has greatly increased. At the last census it was found that the number of male emigrants, *i.e.*, of natives of the district domiciled elsewhere, was 4,000 more than in 1891. The volume of immigration, on the other hand, always very small, has diminished; and the greater number of immigrants come from the adjoining districts. They numbered 24,370 in 1901, while the immigrants from other parts of Bengal amounted only to 1,760 and those from outside the Province to 3,330.

Towns and villages.

There are only two towns, Balasore and Bhadrakh, with a population of over 5,000; and the total number of their inhabitants is only 39,400 or 3·7 per cent. of the population. The remainder of the people are clustered together in 3,358 villages. The people have hitherto developed no tendency to collect into cities; no new centres of industry have sprung up; and the rapid development of commerce and manufactures which is so powerful a factor in the increase of urban population, is as yet unknown. The Oriyā appears to have an inherent aversion to town life; he will not voluntarily leave his hereditary fields, and even when forced to betake himself to a town, he strives to reproduce his village life in his new surroundings. The towns are mere

collections of hamlets, sometimes clustering into crowded streets and bazars, but in many places separated by clumps of trees and rice-fields. Village life goes on in the heart of Balasore, just as it does in the remotest homestead. The cows are driven forth in the morning, and come back at night. In harvest time the bullocks tread out the corn, and eager families busy themselves in piling up rice-stacks, within sight of the market-place. Even among the shopkeepers nearly every man has his little patch of land, to which he clings with all the fondness of a Hindu peasant.

On the average, there is one village to every two-thirds of a mile and the population of each is 307. The average size of a village is about 300 acres and varies from 490 acres in the Bāsudebpur thāna to about 250 acres in the north of the district; generally speaking, the villages in the south are half as large again as in the north.

RACES. The vast majority of the people are Oriyās by birth, but there is an influential minority of Bengalis, who, as zamīndārs or traders, have practically acquired a domicile in the district, or as Government servants have made it their temporary home. Along the western border there is a fair sprinkling of aboriginal hill tribes, such as Santāls and Bhumijes; and the ports of Balasore and Chāndbāli have attracted a certain number of Telugu immigrants from the Madras Presidency. The Marāthās, who held the country for upwards of half a century, have almost entirely disappeared; there is only one family of that race in the district, and that family has adopted the Christian religion.

CHARACTER OF THE PEOPLE. The Oriyā has long had an unenviable reputation as a weak, effeminate and stupid creature; and early writers almost all condemn them. It is said that they "prefer dirt and scarcity of food with idleness to cleanliness and plenty with hard labour"; that "industry and enterprise are as foreign to them as opium-eating and noon-day sleep to the English husbandmen"; that "there are few, if any, districts in India where the natives are so listless and idle as in this—as long as the poorer classes have food enough to eat from day to day, they will not exert themselves to get more or make provision for an evil hour; hence the misery, disease, and starvation occasioned by a dearth of grain".

This unfavourable estimation of their character was forcibly expressed by Stirling, who, writing in 1822, says:—"The Oorias as a nation are justly described by Abul Fazl to be very effeminate, that is they are extremely deficient in manly spirit, their figures are slight and delicate, and the costume of the males has little to distinguish it from that of the females, except the different manner of wearing the cloth fastened about the loins. They are moreover

equally ignorant and stupid. Orissa might be termed the Bœotia of India, with reference to the intellectual dullness of its inhabitants, as compared with the people of any other province. A striking proof of the estimation in which their capacity has been ever held is the fact, that in all ages and under all Governments since the downfall of the Orissan monarchy, the principal official employments throughout the province have been engrossed by foreigners—by Bengalis north and Telingas south of the Chilka Lake— owing, I really believe, in a great measure to the difficulty of selecting from its indigenous population, persons properly qualified for trusts of difficulty and importance. The mass of the people are little prone to the commission of crimes of a daring and heinous character, as might be inferred from the feminine spirit above ascribed to them; but they are well versed in all the arts of low cunning, dissimulation and subterfuge, and the love of intrigue forms a prominent feature in their character, however clumsy many of their attempts to mislead or circumvent. In justice however to the bulk of the agricultural population, it must be said that the ryots are extremely industrious, though they work with little spirit or intelligence, and altogether the Oorias of the plains, whatever their faults, are certainly the most mild, quiet, inoffensive, and easily managed people in the Company's provinces. They furnish too a valuable class of servants in whom the virtues of fidelity and honesty (according to their own conception of those qualities) are conspicuous."

Experience has proved that the character of the people given by Stirling was written in ignorance of the Oriyā character; he was too honest to misrepresent, too just to be prejudiced against them, but coming in contact only with those who under excited passions were engaged in law-suits, he did not know the people. It is true that they are ignorant, superstitious and priest-ridden, and have less natural acuteness than the Bengalis. But they are not so prone to litigiousness and deceit, and they evince more gratitude for kindness. They have proved themselves to possess great aptitude for public business, and their uprightness in offices of much responsibility and beset with very great temptation has placed them in the first rank of our native subjects for trustworthiness and honesty. To this it should be added that the Oriyā bearers are industrious, sober, faithful and trustworthy, and that they will follow a kind master to all parts of India. On the other hand, it is true that the labouring classes and the lower castes of cultivators are somewhat dull-witted, but it is doubtful if the Bihāri peasant or the Bengali ryot is mentally the superior of the Oriyā. Among the more educated classes the Brāhmans

are obstinate and bigoted, but they are of a refined and intellectual type; and the writer caste of Karans, or as they are called locally the Mahāntis, have as high a reputation for acuteness as the Kāyasths of Bihār. The old reproach of unfitness for Government employment can no longer be levelled against them. The purely foreign element has almost disappeared from among the ministerial establishment; and even the domiciled Bengali who has adopted the country as his own is losing ground before the advancing native of Orissa. Young Oriyā graduates passing out of the Ravenshaw College at Cuttack are entering the Subordinate Executive Service; and at the present rate of recruitment, there will in a short time be a staff of Oriyā officers sufficient for the requirements of the whole Division.

Generally speaking, the people are kindly and good humoured, easily controlled and remarkably law-abiding; they are given only to committing the pettiest of crimes, and in many ways recall the old idea of the mild Hindu. Outside Orissa they have a reputation for good work as domestic servants, peons and coolies; and their readiness to migrate and find employment as carpenters, punkah-pullers, *pālki*-bearers and in other kinds of labour requiring physical rather than mental capacity seems to show that they are not altogether sunk in the stagnation which earlier writers have attributed to them. Even the literate classes, however, display a want of enterprise, slowness, and hopeless conservatism which are in marked contrast to the versatility of their Bengali cousins; and an inborn love of ease and dislike of hard work appears to permeate all classes.

In justice to the Oriyās it should be remembered that for ages they have been a conquered nation, and that within the last few centuries they suffered at the hands first of the Mughals and then of Marāthā conquerors. From the end of the 17th century they were continually harried and oppressed; and miserable as their lot had been under the Mughals, it was worse under the Marāthās. The misrule of these marauders presents a dismal scene of extortion, desolation and rapine; their cavalry harried the country at stated periods each year; and, to quote Stirling's Account, "their administration was fatal to the welfare of the people and the prosperity of the country, and exhibits a picture of misrule, anarchy, weakness, rapacity and violence combined, which makes one wonder how society can have kept together under so calamitous a tyranny." It would have been strange if the Oriyā character had not been affected by this tyranny; and it is not surprising that the bitter experience of their forefathers should have discouraged thrift, promoted

improvidence, and tended to make the people a feeble and timid race.

There has also been another influence at work which accounts very largely for their want of spirit and enterprise. From time immemorial they have been a priest-ridden race, kept in subjection by the Brāhmans and subject to all the paralyzing influences of religious superstition and caste prejudice. Nowhere else do the ancient caste rules exercise such an influence. Men following precisely the same occupation are sometimes separated by so vast a social gulf that the slightest bodily contact with each other brings pollution; and the highest cannot touch any article that the lower has handled until it undergoes purification. Not only had the Brāhman the monopoly of education, but no one outside the priestly caste might plant even a coco-nut tree. These profitable trees were only planted by non-Brahmanical hands after the advent of the missionaries, and the native Christian who had been the first to break the immemorial custom was regarded for many years as a man lying under the wrath of the gods.* An equally striking instance of the strength of caste prejudice is the existence of the caste, called Chhatra-khia, which is made up of the people who lost their caste in 1866 for eating in relief-kitchens (*chhatra*). The caste is divided into an upper and lower sub-caste—the former comprising Brāhmans, Karans, Khandaits and Gop-Goālās, the latter consisting of the castes ranking below these in the social scale. Members of each sub-caste marry within that group, irrespective of the caste to which they originally belonged; but no intermarriage is possible between members of the two sub-castes.

A third important factor in the development of the national character has been the liability of Orissa to physical calamities. This has been largely instrumental in promoting thriftlessness and idleness. The ruin of crops and houses by cyclones, the loss of life and destruction of property caused by storm-waves, the drought following short rainfall and the floods which are due to its excess, all these are calamities, the very prospect of which induces improvidence, while their occurrence results in indebtedness and poverty. In these circumstances, it is perhaps not surprising that the ryot, whom the inclemency of the seasons may deprive of half his produce in any year, should exhibit an oriental fatalism and show little desire for progress.

In conclusion, the following remarks may be quoted from the report of the Settlement Officer, Mr. D. H. Kingsford, I.C.S., who had exceptional opportunities of studying the character of the

* See Orissa, by Sir W. W. Hunter, Vol. ii, pp. 139—141.

Balasore ryots. "Even less industrious than those of Cuttack, they have been truly described as unwilling to do more work than will provide them with mere maintenance. Their general indebtedness and the extent to which they have subdivided their holdings are glaring instances of their improvidence. Much inferior to the Bengalis in enterprise and energy, it is doubtful whether, had they such a city as Calcutta in their midst, they would appreciate the opportunities offered by its proximity for the improvement of their circumstances to an extent at all comparable with the business capacity of the Bengali ryot. It is difficult to conceive them abandoning the cultivation of their lands to engage in industries such as those which have developed amongst the cultivators of Bengal.

"It is true, however, that outside Orissa the Oriyās have gained, as domestic servants, as carpenters, as gardeners, as cultivators and as hard-working coolies, a reputation which appears to be quite foreign to their character at home. Perhaps this is due to the fact that a process of natural selection causes the emigrants to be more enterprising than their stay-at-home relatives, and better fitted to adapt themselves to altered conditions. But, if these circumstances be more closely examined, it will be found that the emigrant Oriyās have not supplanted the Bengalis in any of these occupations; they have merely taken up those which the Bengalis, having found more lucrative professions, had abandoned. Thus many well-to-do ryots in Chinsura and other places employ Oriyās to cultivate their lands, while they themselves engage perhaps in dairy farming, and take in their supplies each day upon the milk-train to Calcutta. Nearly all respectable native families in the districts neighbouring Calcutta employ Oriyās as domestic servants, because they cannot obtain Bengalis except on prohibitive terms. The Bengal carpenter of Calcutta has left to the Oriyā almost a monopoly of the plainer descriptions of work, such as the making of *jhilmils* and door-frames, and has himself gone a step higher, and shares with the Chinaman the manufacture of finer work in the shape of cabinets and ornate furniture. Employment as coolies in the coal-yards, as punkha-pullers, and in the endless other pursuits of unskilled labour, has been deserted by the Bengali, who has shewn himself capable of duties requiring more intelligence and consequently better paid. Thus, though the Oriyā in Bengal is a better servant, a better carpenter and a better cooly than in Orissa, he cannot compete with the Bengali upon the latter's ground.

"When the valour with which the peasant militia of this district repulsed the early Muhammadan invasions, and the courage

and fearlessness they exhibited in 1730, when, at a distance from their homes and country, they subjugated Bihār, are considered, it must be admitted that the decline in the military spirit among this people is an extraordinary point in the development of their character. Though a few years ago orders were passed for the enlisting of Oriyās in the wing of a Madras regiment quartered at Cuttack, none were found suitable or willing for the employment. Crimes of violence are most rare amongst them; they are generally peaceful, law-abiding and submissive. I do not wish to speak contemptuously of the Oriyā character, for there are many features of it, such as their friendliness, good humour and kindliness and hospitality which they display to each other, which denote that they are not at all deficient in the domestic virtues. Their aversion to town-life and education, and that which the Brāhmans at one time showed for Government employ, mark at any rate a sturdy conservatism which is preferable to the abandonment of moral standards, sometimes induced by too rapid development of education and civilization."*

The great majority of the people speak Oriyā,† or as it is sometimes called Odrī or Utkalī, *i.e.*, the language of Odra or Utkal, both of which are ancient names for the country now called Orissa. Oriyā, with Bengali, Bihāri and Assamese, forms one of the four speeches which together make up the eastern group of the Indo-Aryan languages. Its grammatical construction closely resembles that of Bengali, but it has one great advantage over Bengali in the fact that, as a rule, it is pronounced as it is spelt. There are few of those slurred consonants and broken vowels which make Bengali so difficult to the foreigner. Each letter in each word is clearly sounded, and it has been well described as "comprehensive and poetical, with a pleasant sounding and musical intonation, and by no means difficult to acquire and master." The Oriyā verbal system is at once simple and complete. It has a long array of tenses, but the whole is so logically arranged, and built on so regular a model, that its principles are easily impressed upon the memory. It is particularly noticeable for the very complete set of verbal nouns, present, past and future. When an Oriyā wishes to express the idea embodied in what in Latin would be called the infinitive, he simply takes the appropriate verbal noun, and declines it in the case which the meaning necessarily requires. As every infinitive must be some oblique case of

LANGUAGE.

* See also the account of the material condition of the people in Chapter viii.

† This account of the Oriyā language has been condensed from Dr. Grierson's Linguistic Survey of India, Vol. v.

a verbal noun, it follows that Oriyā grammar does not know the so-called infinitive mood at all. In this respect Oriyā is in an older stage of grammatical development than even classical Sanskrit, and, among Indo-Aryan languages, can only be compared with the ancient Sanskrit spoken in the Vedic times.

The archaic character, both of form and vocabulary, runs through the whole language, and is no doubt accounted for by geographical position. Orissa has ever been an isolated country bounded on the east by the ocean, and on the west by the hilly tracts inhabited by wild aboriginal tribes. On the south the language is Dravidian and belongs to an altogether different family, while, on the north, it has seldom had political ties with Bengal. On the other hand, the Oriyās have been a conquered nation. For eight centuries they were subject to the kings of Telinga, and, in modern times, they were for fifty years under the sway of the Bhonslas of Nāgpur, both of whom left deep impressions of their rule upon the country. On the language they imposed a number of Telugu and of Marāthī words and idioms, which still survive. These are, so far as we know, the only foreign elements which have intruded themselves into Oriyā, except the small vocabulary of English court terms, and a few other English expressions, which English domination and education have brought into vogue.

In some parts of Balasore, however, there is a tendency to use Bengali words and idioms partly owing to the inter-communication with Bengal, and partly to the fact that a number of Bengalis have been settled in the district for some generations. In former times sales of Orissa estates for arrears of land revenue were held in Calcutta, and the purchasers were frequently Calcutta Bengalis who settled in Balasore. These Bengalis and their descendants have developed a curious jargon of their own, their ancestral language being interlarded with Oriyā and Hindī expressions. Owing to their frequent use of the word *kare*, a corruption of the Oriyā *kari*, their speech is vulgarly known as *kerā* Bengali; and this mongrel language has in its turn reacted on the local Oriyā.

Oriyā is remarkably free from dialectic variation. The well-known saying, which is true all over the north of India, that the language changes every 10 *kos*, does not hold in Orissa. In Orissa proper, *i.e.*, in what is known as the Mughalbandi, which consists of Cuttack, Purī and the southern half of Balasore, the language is one and the same. On the other hand, the Oriyā of North Balasore shows signs of being Bengalized, and as we cross the border between the district and Midnapore, we find at length

almost a new dialect. It is, however, not a true dialect, but a mechanical mixture of corrupt Bengali and corrupt Oriyā. A man will begin a sentence in Oriyā, drop into Bengali in its middle, and go back to Oriyā at its end; but though the vocabulary borrows freely from Bengali, the language is Oriyā in its essence.

Written character. Oriyā is encumbered with the drawback of an excessively awkward and cumbrous written character. This character is, in its basis, the same as Devanāgari, but is written by the local scribes with a stylus on a talipot palm-leaf. These scratches are, in themselves, legible, but in order to make them more plain, ink is rubbed over the surface of leaf and fills up the furrows which form the letters. The palm-leaf is excessively fragile, and any scratch in the direction of the grain tends to make it split. As a line of writing on the long, narrow leaf is necessarily in the direction of the grain, this peculiarity prohibits the use of the straight top line, or *mātrā*, which is a distinguishing characteristic of the Devanāgari character. For this the Orissa scribe is compelled to substitute a series of curves, which almost surround each letter. It requires remarkably good eyes to read an Oriyā printed book, for the exigencies of the printing press compel the type to be small, and the greater part of each letter is this curve, which is the same in nearly all, while the real soul of the character, by which one is distinguished from another, is hidden in the centre, and is so minute, that it is often difficult to see. At first glance, an Oriyā book seems to be all curves, and it takes a second look to notice that there is something inside each.

Literature. Oriyā literature* is of comparatively recent growth, none of the existing works, so far as can be ascertained, going back beyond the 16th century A. D. It consists exclusively of verse, and as is natural with a conservative people like the Oriyās, the earliest works extant are religious, viz., a few songs and certain paraphrases of the Sanskrit Purānas and epics. No work is so much venerated as the *Bhāgabata* of Jagannātha Dāsa; and next in estimation come the *Rāmāyana* of Balarāma Dāsa, the *Bhārata* of Sārolā Dāsa and the *Harivansa* of Achyutānanda Dāsa. All these were composed in the first half of the 16th century A. D., to which period may probably be referred popular songs like the *Kesabakoili* or cuckoo-song about Krishna. Profane literature appeared later, and at first dealt only with mythological stories. Among the oldest of these is the poem *Rasa-kallola* by Dīnakrishna Dāsa. This poem describes the early career of Krishna, and is a

* I am indebted to Bābu Monmohan Chakravarti, M.A., B.L., M.R.A.S., for the account of Oriyā literature.

favourite with the Oriyās; its versification is peculiar in making every line begin with the same letter *ka*.

The most famous of the Oriyā poets is Upendra Bhanja, who, following Dīnakrishna Dāsa, flourished in the beginning of the 18th century. One of the royal family of Gumsur, a petty hill State in the north-west of Ganjām district, he was driven to take refuge in Orissa in the course of a civil war, and there devoted his life to Oriyā literature. Of his voluminous compositions, forty-two are at present known, the bulk of them consisting of poems with love-stories as their theme. He was apparently the first Oriyā poet to free himself from the trammels of exclusively religious and mythological influences. His poems labour under the defects of obscenity and obscurity, but contain some fine rhetoric. In the latter respect his only rival is Abhimanyu Sāmanta Singhār, who died in 1806, the author of *Bidagdha-Chintāmani*, which explains in lucid lines the abstruse doctrines of Vaishnavite *Bhakti* and *Prema*. During the British period Oriyā poetry has shown no progress. It is represented by a few doggerel compositions and some small pieces of verse, among which a collection of short poems by Rai Rādhā Nāth Rai Bahādur, late Inspector of Schools, Orissa, deserves notice. Prose is, however, being carefully studied and has a promising future.

RELIGIONS.

The great majority of the people are Hindus, who, with an aggregate of 1,033,166 persons, account for 96·4 per cent. of the population. The Muhammadans number only 28,340 or 2·6 per cent. of the population; while 0·8 per cent. are Animists drawn from the aboriginal races. It is somewhat strange at first sight that the Musalmāns are not more numerous considering the strong footing they once had in Orissa. The Muhammadans effectually conquered the Province and took possession of it in 1568 A. D.; and subsequently in Akbar's reign, when the Afghān kingdom of Bengal was overthrown by the Mughals, the Afghāns migrated in large numbers into Orissa and there held large fiefs and independent power. When they again rose in revolt, they were signally defeated, and in order to deprive them of the means of political combination, Shujait Khān distributed them among the villages in the interior, but allowed them grants of lands sufficient to maintain their dignity. Orissa long remained a dependency of the Mughal Empire, and the Afghāns continued in possession of their *jāgīrs*; but with the lapse of centuries they dwindled in numbers and in influence.

Hindus and Muhammadans.

The Muhammadan conquest was not only late chronologically, but it failed to attain that permanence and completeness which it

obtained in Bengal. It was a conquest rather than a colonization, and the Mughals and Afghāns made few converts to Islām, though they were tolerant, at least in the later period of their rule, to Hindu institutions. Thus the emperor Shāh Jahān made a grant of the lands of *pargana* Shāhjahānābād for the maintenance of a bridge over the Kānsbāns for the convenience of pilgrims going to Purī; it was reserved for the Hindu Marāthās to resume this pious grant which benefited all races and creeds. The Musalmān element is comparatively small, and mostly limited to a few centres, such as Balasore, Bhadrakh and Dhāmnagar. Such Muhammadans as there are are generally the descendants of the invaders, not as in other parts of Bengal, converts from Hinduism. They have retained the mother-tongue of their ancestors, and have not adopted the language of the people among whom they dwell. One family at least, the Garhpadā Bhuiyās, the offspring of a converted Brāhman zamīndār, though it shows tenderness for some Hindu traditions (*e.g.*, the females will not eat beef) has deserted its native Oriyā for the Urdū of its present co-religionists. A similar aversion to beef exists among the members of the old Mian family of Bhadrakh, who are of Pathān or Afghān descent, as a result of their long residence among a Hindu community.

Christians. At the census of 1901 it was found that there were altogether 1,274 Christians in the district, of whom 1,110 were natives. There are two Christian missions at work, the American Free Baptist Mission and a Roman Catholic Mission. The former Mission started work in Balasore in 1832, and has stations at Chāndbāli, Bhadrakh, Mitrapāra, Jaleswar and Sāntipur; it also maintains 3 orphanages and conducts medical work on a large scale. The work done by it is of a general character, evangelistic, educational and industrial. The first is carried on under missionary supervision by a large number of native evangelists, who visit the various markets and bazars and make tour regularly through the villages in the interior. The educational work of the Mission is carried on chiefly in Balasore town, where it maintains a High school, an English school for European boys and girls, 5 Kindergarten Lower Primary schools and a Middle English school. At the other stations within the district there are 2 Middle English schools and one Middle Vernacular school, as well as 31 Lower Primary schools and one Kindergarten school. The industrial work includes farming, weaving and carpentry. A station for experimental farming and gardening, which Government has recently established in Balasore, has also been entrusted to the control of the Mission.

The Roman Catholic Mission is a comparatively small one. Its work is carried on chiefly in the town of Balasore, where there is a large chapel and a small Roman Catholic population. There is a priest attached to the Mission and four nuns, who have the management of an orphanage for native girls.

Hindu sects.

Vaishnavism is predominant among the people, and the causes of this predominance are not far to seek. The existence of the temple of Jagannāth, who is regarded as an incarnation of Vishnu, has exerted a powerful influence on the popular faith; and besides this, the famous reformer Chaitanya passed an important part of his life in these parts, and made a lasting impression upon the popular mind by the purity of his life and teachings. Vaishnavism is still struggling to divert the popular mind from the number of gross animistic accretions by which the religion of the mass of the population is encumbered; and it is Vaishnavism which mainly distinguishes the semi-Hinduized aborigines in the plains of Orissa from their Animistic brethren in the hills, though its adoption is often merely nominal and its high ethical principles do not shape the moral conduct of the people. Genuine Oriyās belonging to sects other than that of the Vaishnavas are very few in number.

Religious life.

The religion of the people exhibits very clearly the blending of Hinduism with Animism, and the process of assimilation appears to be illustrated by the common legend of Jagannāth.* Here we find the aboriginal people worshipping a blue stone in the depths of the jungle, until the deity grows tired of the jungle offerings of the primitive people and longs for the cooked food of the more civilized Aryan race. When the Aryan element at length comes on the scene, the rude blue stone disappears and gives place to a carved image. At the present time this twofold worship co-exists throughout Orissa. The common people have their shapeless stone or block which they adore with simple rites in the open air; while side by side with it is a temple to one of the Aryan gods with its carved image and elaborate rites. Every village pays homage to the Grām Devatī † or Thākurānī, as these stones and stocks are called, and reverence her as the tutelary goddess of their small community.

The goddess is commonly represented by a piece of shapeless stone, smeared with vermilion and surrounded by several smaller pieces of stone, also vermilion-daubed and shapeless, which represent her children. Carved images are sometimes, though rarely,

*See Sir W. W. Hunter's Orissa, Vol. i, pp. 88—95.

†For a fuller account see Note on the Grām Devatī or tutelary village deity of Orissa by Bābu Jāminī Mohan Dās, J. A. S. B., Vol. lxxii, Part iii, No. 2, 190

met with, and occasionally the trunk of some tree supposed to possess supernatural properties is smeared with vermilion and worshipped as the village goddess. Besides the generic name Grām Devatī, each goddess has a separate specific name which is commonly one of the thousand names of the goddess Kālī. The general idea seems to be that she is like a mischievous old witch; and earthen figures of horses, elephants and other animals are placed before her by the superstitious rustics, as it is believed that she wanders about at night.

The most noticeable feature of the Grām Devatī worship is the non-priestly caste of the men who conduct it, the Bhandārī, Māli, Rāul or Bhopā being usually the priest. They hold small rent-free grants called "*māfi Grām Devatī*," *i.e.*, lands which were left unassessed for her worship at the time of the first regular settlement, and they also receive daily doles from the rich men of the village and weekly doles from the poorer peasants: the latter are given on Thursday, commonly regarded as Lakshmī day, or the day of the goddess of fortune, which is considered a specially auspicious day for the regular *pūjā* of the Grām Devatī. The first essential in this worship is a bath which keeps the Thākurānī cool and well disposed towards the village. The bath includes smearing with *ghī* and turmeric; when it is completed, a paint of vermilion is put on, and after the toilet is over, a light oblation (*bhog*) of fruit and sweetmeats is offered. The daily *pūjā* including both bath and *bhog*, costs about an anna, and if this small daily expenditure cannot be met, the priest contents himself by pouring a little water over the goddess, though sometimes even this inexpensive offering is dispensed with. The worship of the Grām Devatī is conducted with great pomp and ceremony on the Mahāstamī or second day of the Durgā *Pūjā*; and special offerings of sweetmeats and fruit are made on all festive occasions.

The Thākurānī, who is supposed to possess more powers for doing or averting mischief than for doing positive good, receives special attention on the outbreak of any epidemic disease. Within her own village she is believed not to commit any mischief; and epidemics are supposed to be the work of neighbouring goddesses, whom the tutelary village goddess expels by persuasion or superior force, if she is duly propitiated. The occurrence of a single case of cholera in the village is the signal for "Thākurānī Mārjanā" or washing of the Thākurānī. The villagers immediately raise the necessary funds by subscription, and propitiate the goddess by a cooling bath and refreshing offerings, the ceremony being repeated, if the epidemic does not cease.

The people have a peculiar means of knowing the wishes and decrees of the goddess. In almost every village there is a male or female medium, called Kālasī, through whom the goddess communicates with the people. The presentation of a betel-nut is the token of engaging the Kālasī, whose services are specially in demand on the occasion of an outbreak of cholera. Before the time appointed for the Mārjanā, he takes a purifying bath, puts on a new cloth, and paints his forehead with vermilion. Then holding two canes in his hands, he appears before the Grām Devatī, and with dishevelled hair swings his body to and fro. After a time he begins to tremble, and in the course of his confused mutterings gives out some secrets of the village to win the confidence of the people. He then predicts evil to some and good to others, prescribing at the same time the remedies required, which take the shape of offerings to the goddess and special favours to himself. While going through these antics, the Kālasī is sometimes offered a fowl, the blood of which he drinks after pulling off the head.

Certain village goddesses are regarded as "Parama Vaishnavis" or devoted followers of Vishnu, and animal sacrifices are not allowed before them. Probably owing to the spread of Vaishnavism, such sacrifice sare only made sparingly before the other goddesses; but in the Mahāstamī *pūjā* and other special *pūjās* offered in fulfilment of vows, animals are generally sacrificed. Fowls are also let loose before some of the goddesses by the upper classes of Hindus and are killed and eaten by the lower classes.

It seems hardly open to question that this worship of malevolent spirits, through the medium of shapeless stones, is an offshoot of the fetishism of the aborigines. The fact that all Hindus from the highest to the lowest make the Grām Devatī the object of their adoration shows how the beliefs of the whole Hindu community have been permeated by this fetishism. It still includes, though to a restricted extent, the sacrifice of animals, which is one of the most characteristic features of aboriginal worship; and the offering of fowls which are so rigorously excluded from the houses of the upper classes of Hindus, can hardly be said to be anything else than an aboriginal practice. The restriction of the priestly function to the Sūdra castes is another link in the chain of circumstances which indicate the aboriginal origin of this form of worship. While the Brāhman stood aloof, the mass of the people, leavened in their lower strata by the aborigines, adopted the faith which, by its easy explanation of the origin of evil, appealed most strongly to their simple minds. The Brāhman could not, however, long stand against the popular

current which thus set in, and he eventually invented more refined forms of worshipping the same malevolent spirit. The aboriginal mode of village worship seems thus to have preceded the Paurānik rites of Sakti worship, although the present names of the goddesses are apparently of later date.

PRINCIPAL CASTES.

There are 11 castes with a numerical strength of over 25,000 each, which account for altogether 740,000 persons or about three-fourths of the entire population. These are the Khandaits, Brāhmans, Gauras, Pāns, Tāntis, Telis, Rājus, Golās, Kandrās, Gokhās, and Karans. A brief account of each of these castes is given below.

Khandaits.

The Khandaits are by far the largest caste in the district, numbering, according to the census returns of 1901, over 210,000 or more than a fifth of the entire population. There is some difference of opinion as to the origin of the word Khandait. The general view is that it means swordsman (from *khandā* a sword), but another explanation, which has been put forward, and with much plausibility, is that Orissa was formerly divided into *khandas*, or groups of villages corresponding to the *pargana* of Muhammadan times, and that there was over each a headman called *khandapati*, which was subsequntly corrupted to Khandait. Whatever may be the etymology of the name, it is generally admitted that the Khandaits are the descendants of the people who formed the peasant militia under the ancient Rājās of Orissa. The armies of these chieftains consisted of various castes and races, the upper ranks being officered by men of good Aryan descent, while the lower ranks were recruited from the low castes alike of the hills and plains. As members of the militia, the Khandaits had to serve as soldiers in time of war, and in return they were given lands to hold under a strictly military tenure. Their characteristic occupation and the consequent relation with land tended to alienate them from the communities to which they had originally belonged, and eventually led, on the establishment of a well-defined caste system, to the formation of the Khandait caste.

The variety of types which the Khandaits exhibit and their free intercourse with some other castes tend to show that they cannot trace their descent from a single origin and that the caste is only a heterogeneous group, which is perhaps made up at the one end of Aryan immigrants and at the other of recruits from a number of indigenous non-Aryan tribes. They are divided into two sub-castes—(i) the Mahānaik Khandaits and (ii) the ordinary Khandaits. The latter, who occupy the position of ordinary cultivators, appear to correspond to the rank

and file of the old feudal militia, while the former, who hold large *jāgīr* tenures, may represent the officers of that body; an almost impassable gulf seems to exist between these two sub-castes, and there is nothing common between the two, except the name itself. On the other hand, cases of intermarriage between the Khandaits and members of other castes of equal standing are not at all rare. Karans, a fairly high caste of Aryan descent, are often found marrying members of Mahānaik Khandait families, and intermarriage between the Chāsas, who have an admixture of aboriginal blood, and the ordinary Khandaits is quite a common occurrence.

Brāhmans. The Brāhmans, are, next to the Khandaits, the most numerous caste in Balasore, numbering nearly 120,000 persons. They belong to the Utkal class of Brāhmans, which is one of the five great territorial groups, into which the Gaura Brāhmans of Northern India are divided. Antiquarian research has not yet been able to fix the time when this division took place, but it may perhaps be assumed that the colonies of Aryan Brāhmans were separated by local usage, and that this separation was marked by geographical limits, before the wave of Buddhism passed over the Utkal country. Buddhism deprived the Brāhmans of their priestly functions and drove them to more worldly pursuits for their subsistence. Most of them resorted to agriculture, while a few are believed to have taken service as cooks in the temple of Jagannāth. In the 5th century A. D., the ruling dynasty revived the Brahmanical faith in Orissa, not by restoring the priestly functions to the degraded Brāhmans, who, forsaking the Vedas, had become cultivators and cooks, but by importing 10,000 Brāhmans of pure faith, fit to perform Vedic rites, from Kanauj, the greatest stronghold of Hinduism in Northern India. Tradition relates that these Brāhmans performed 10 great "horse-flesh sacrifices" (*Asvamedha Jajna*) on the bank of the sacred Baitaranī near the town of Jājpur; and a flight of steps, called Dasāsvamedha Ghāt, yet marks the spot near which the sacrifices were performed. These imported Brāhmans gradually spread over the whole of Orissa and the colonies which they formed with the aid of royal grants of rent-free lands are still known as *Sāsans*.

In course of time, however, the process which caused the original division of the Gaura Brāhmans into five groups was repeated and two endogamous subdivisions were formed on the two sides of the river Brāhmanī, the northern subdivision being called Jājpurotriya and the southern Dakshinotriya. Jājpur or Biraja Kshetra is the centre of the former and still contains the largest proportion of Brāhmans in Cuttack district. Purī is the centre of

the latter, though colonies of Dakshinotriya Brāhmans have crossed the boundary since the cleavage and settled in the northern region. Throughout Orissa, Brāhmans taboo wine, but those who worship the goddess Kālī are permitted to drink it, and the temple of the great goddess Birajā at Jājpur probably became a centre for the spread of this objectionable habit. This seems to be the only feasible explanation of the legend that the water of the sacred Baitaranī became wine and that the Jājpur Brāhmans degraded themselves by drinking it; and it is noticeable that the southern Brāhmans give this as a reason for considering the northern Brāhmans inferior to themselves.

It must have been increasingly difficult for a growing community to keep strictly within the limits of the religious duties, prescribed by the Sāstras; and a further split was, therefore, caused between those in the enjoyment of royal patronage who continued to observe them, and those whom necessity forced to depart from them. Each territorial subdivision has thus been divided into two groups called Srotriya or Vaidik and Asrotriya or non-Vaidik. The former includes the Sāsani Brāhmans, who depend, for their subsistence, chiefly on royal grants of rent-free lands, and the latter includes the following classes:—(1) Sāruā or Paniāri, growers and sellers of vegetables; (2) Pāndā, Pūjāri or Deuliā, professional temple worshippers or cooks; and (3) Marhia, priests of low castes, who receive alms from the humble clients whom they serve and enjoy the privilege of being fed first in all feasts connected with *prāyaschitta* or purification ceremonies. The Srotriyas do not intermarry with the Asrotriyas, and the latter have no intercourse with the degraded Māstāns or Mahastāns of the pre-Buddhistic period. The non-Brahmanical occupations and titles of the latter mark them out as a class quite distinct from the rest of the Brāhmans of Orissa; they are called Balarāmgotrī, apparently from the fact that the plough is believed to be the distinctive weapon of the god Balarām.

The Utkal Brāhmans were originally all Sāktas, but now they all keep the *salgrām* and worship the four gods Vishnu, Sīva, Ganesh and Sūrya, and the goddess Durgā. Chaitanya converted some of the Brāhmans to Vaishnavism, but even these converts worship the four gods and the goddess mentioned above on ceremonial occasions. The Grām Devatī receives the same degree of homage from this caste as she does from the other castes in Orissa. The ten *sanskārs* or purifying ceremonies are a distinctive feature in the life of the Utkal Brāhman. According to the Sāstras, they should be performed at different periods of life, but in Orissa all the ceremonies are performed at the time of

upanayana or assumption of the sacred thread. The Utkal Brāhmans observe most rigidly the limits of age laid down in the Sāstras for the marriage of girls, giving them in marriage usually before ten and seldom after twelve, unlike the other high castes, the Kshattriyas, Karans and Khandaits, whose daughters are rarely married before twelve and are sometimes kept unmarried up to what is regarded as an advanced age even among educated reformers.

The Utkal Brāhmans have *gotras* indicative of descent from old *rishis*, like the other Brāhmans of Northern India. The *gotra* groups are all exogamous, and some of them have been further broken up by titles indicating descent from more recent ancestors. Below this again there are still more subdivisions leading to a system of hypergamy, which, however, is far less marked in Orissa than in Bengal. In this connection, mention may be made of the remarkable fact that among the Utkal Brāhmans traces are found of the existence of the totemistic beliefs common among the Dravidian races. A Brāhman of the Atreya *gotra* for instance will not sit on the skin of the deer or eat its flesh. A Brāhman of the Kaundinya *gotra* similarly does not sit on the skin of a tiger, and a Brāhman of the Gautama *gotra* offers special *pūjā* to the cow on the occasion of marriage. The usage is explained not by any direct descent from the animals revered, but by the legend that the *gotra rishis* who were invited to the *jajna* of Daksha fled in the disguise of animals, when the *jajna* was broken up by Siva. This is no doubt a fiction invented to explain an aboriginal belief, which the Brāhmans apparently imbibed from the Dravidians with whom they came in contact. There is, however, no evidence that there was any actual infusion of Dravidian blood among the pure Aryans who were imported from Kanauj.

Gauras.

The Gauras, who in Balasore number 74,000, are the great pastoral caste of Orissa, corresponding to the Goālās in Bengal and Bihār. They nearly all possess cattle and are chiefly engaged in breeding cows and in selling milk, curd and *ghī*; about 25 per cent. are also engaged in agriculture, and some serve as *mulyās* or hired agricultural labourers. They also work as domestic servants and very largely follow the profession of *pālki*-bearers. There are several sub-castes, of which the Mathurāpurī ranks highest in Balasore, because its members do not carry the *pālki*. The Gopapurī sub-caste is noticeable for the fact that its female members are almost the only women in Orissa who do not wear nose ornaments—a circumstance which, they pretend, connects them with Krishna's mythical milkmaids. The young women of both sub-castes prepare the butter and *ghī* which the elder

ones take round for sale with their milk. Field labour of all kinds is eschewed by the Gaura women. The sub-caste known as Magadha ranks last and is probably a recent accretion from some aboriginal tribe.

The next most numerous caste is that of the Pāns (60,000), who seem to have been originally one of the aboriginal tribes. The social status of the caste is very low; they eat pork and fowls, drink wine, and repudiate the Hindu restrictions upon food. Their original occupation is said to be weaving, but they now mostly work as day-labourers, drummers and cane-weavers; many of them have taken to cultivation, and the village *chaukīdārs*, *pāiks* and postal runners are largely recruited from their ranks. Their professed religion is a sort of bastard Hinduism, which inclines to Vaishnavism, each group of Pāns having their Pān Vaishnava who officiates as their priest. The veneer of Hinduism, however, has only recently been laid on, and beneath it may be perceived plentiful traces of the primitive Animism common to Dravidian tribes. Pāns.

The only other castes numbering over 50,000 are the Tāntis (56,000) and Telis (50,170). The Tāntis or weaver caste are of some interest, as having been instrumental in laying the foundation of the fortunes of the English in this district; for it was the delicate fabrics turned out from their looms that maintained the early European factories. The muslins and cloths woven by them were exported in large quantities to Europe; but the introduction of machinery has not only killed the export trade, but has flooded the country with cheap piece-goods and seriously crippled the local weaving industry. Many of the weavers have consequently given up their hereditary occupation, and have taken to agriculture and labour. The caste is divided into several sub-castes, two of which, the Aswinī and Gauriā Tāntis, are said to have come from Bengal in order to learn the secret of weaving the fine cloth for which Balasore was once famous. Another subdivision, the Mātiās, whose main occupation is the cultivation of the soil (*māti*) is said to be of aboriginal descent; while the Sankhuās are so-called because their caste occupation is blowing conch-shells (*sankha*) at weddings and other ceremonies. Other castes. Tāntis.

The Telis call for only a brief mention. They are the oilmen of the country, but many of them are traders; they are also known as Kuberputras or sons of Kuber, the god of wealth. Telis.

The Rājus, who number 47,000 souls, are mainly engaged in agriculture, but a few are money-lenders and zamīndārs. They trace their origin to a certain Rājā of Orissa, Chauranga Deb, who when encamped at Jaleswar fell in love with two girls, one of the Rājus.

Vaisya and the other of the Dhobā caste. His descendants by the former are known as Daina, and those by the latter as Bayān. The females of the former class wind their *sāri* from the left, and those of the latter from the right side of the waist.

Golās. The Golās, who number 34,000, are a low caste, which is more numerous in Balasore than elsewhere. It is divided into four sub-castes, viz., (1) the Gandiā, who live by cultivation, chiefly of onions and garlic, and by the manufacture of gunny-bags; (2) the Bengali, who are prohibited from growing onions and garlic and from making gunny-bags, and are usually cultivators or petty traders; (3) the Tulābhinā, or cotton carders; and (4) the Thoriā, or traders in grain, which they carry on pack-bullocks, whence their name. The gradual introduction of railways and roads is causing many Thoriās to take to cultivation as a means of livelihood.

Kandrās. The Kandrās, who number 32,000, are a distinctive Oriyā caste, ranking very low in the social scale. They are usually day-labourers or village *chaukīdārs*, the latter being considered the traditional caste occupation. Their women folk serve as coolies, and collect and sell shells, feathers, firewood, etc. The name is said to be derived from their skill in archery (*kānda* meaning arrow), and in former times they and the Pāns formed the rank and file of the local militia. They are also known as Digrurk.

Gokhās. The Gokhās, with a strength of 30,700, are more numerous in this district than in other parts of Orissa. They are a fisher caste, and their name is said to be derived from *go* water and *khāya* living. They may use only bamboo fishing contrivances, called *shāluā*, and are forbidden to fish with nets. Some have abandoned their traditional occupation and taken to cultivation, while others serve as *pālki*-bearers, whence they are called *kāduabehārā* or "mud bearers" to distinguish them from the regular *pālki*-bearers of the Gaura caste. They are a very low caste whose touch defiles, and they rank far below the Kewats, who also live by fishing.

Karans. The Karans, who number 25,600, are the only other caste with a strength of over 25,000. They are the writer-caste of Orissa, but there are many among them who are zamīndārs, tenure-holders or ryots. These Karans, who are also called Mahāntis, are one of the most intelligent and influential classes in Orissa. One curious custom of theirs may be mentioned. Young girls are carefully trained by their mother's in artificial weeping, and when they go to their husband's house, weep aloud and take leave of every member of the family by singing in plaintive tones the songs they learnt before their marriage.

Dagārs. In conclusion, mention may be made of a small caste peculiar to Balasore, the Dagrās, who are found chiefly in the

Bhadrakh and Dhāmnagar thānas. The term means "a messenger," and it is said that the Dagrās were postal runners either during Muhammadan rule or under the Marāthās, when they acquired considerable *jāgīrs*, known as Arajī Dagrāi, which are still in existence. Most of them are cultivators, but in Bhadrakh some are hereditary holders of proprietary tenures, the grant of which dates from Marāthā rule, when one of the caste rose to be the local governor of Bhadrakh. According to some they were brought from Nāgpur by the Marāthās; others allege that they are connected with the Dagrās of Upper India. They bear the same titles as Chāsas, and it may therefore be surmised that they are a functional offshoot from that caste.

CHAPTER IV.

PUBLIC HEALTH.

VITAL STATISTICS.

A COMPARISON of vital statistics for any lengthy periods is rendered impossible by the changes in the system of registering births and deaths which have taken place from time to time. In 1869 the duty of reporting deaths was imposed on the village *chaukīdārs*, and in 1876 the system was extended to births; but the returns received were so incomplete that they were soon discontinued and, except in towns, deaths alone were registered until 1892, when the collection of statistics of births as well as of deaths was ordered, and the system now in vogue was introduced.

So far as they can be accepted--and they are sufficiently accurate for the purpose of calculating the approximate growth of the population and of showing the relative healthiness or unhealthiness of different years—the returns submitted since that year show that, on the whole, conditions have been favourable to the growth of the population. There have been repeated outbreaks of cholera, causing considerable mortality; but the number of deaths reported has exceeded the births only in three years, viz., in 1892, 1894 and 1896, when there were severe epidemics; and in the nine years 1892-1900, taken together, the births outnumbered the deaths by about 30,000. During the last 5 years (1901-05) the growth of the population has been sustained, the excess of births over deaths amounting to 24,000. On the other hand, this quinquennium witnessed a falling off in the birth-rate as compared with the previous 5 years, the ratio of births declining from 40 to 39 per mille; while the death-rate rose from 31 to 34 per mille. The result is that of the three sea-board districts of the Orissa Division, Balasore showed the least advance in the second half of the decade ending in 1905. While the birth-rate rose in Purī and was practically stationary in Cuttack, it fell in Balasore; and in that district too there was the greatest relative rise in the death-rate in the quinquennium, though it is the healthiest of the three districts.

The mortality among infants is exceptionally high, and in this respect Balasore has for several years past had a very bad record; the returns of 1905 show that no less than 27·7 per cent.

of every 100 children born died during the first year of their life, a percentage higher than in any other Bengal district except Shāhābād. This high death-rate among infants may be ascribed to the operation of one or more of several causes, such as the poverty and consequent poor vitality of the majority of the parents; disregard of the primary rules of sanitation in the lying-in rooms, which are generally dark, damp and ill-ventilated out-houses; want of skilled midwives; insufficient nourishment, especially when the mother is sickly; insufficient clothing, combined with neglect and exposure; ignorance and neglect in the treatment of infantile diseases; and the immaturity of parents, leading to feeble organization in the children and enhancing the natural susceptibility to disease.

The climate is on the whole good, except in the north, where malarial fevers of a malignant type have spread from the adjacent tracts of Midnapore, and in the south-east corner of the district, at the mouth of the Dhāmra, an unhealthy locality where low malarial fevers are prevalent. The highest birth-rate in recent years was recorded in 1899, when it was 46 per mille, and the lowest (31·7 per mille) in 1892. In the latter year the death-rate reached the highest percentage yet returned (43·6 per mille), but fell in 1893 to the lowest on record, viz., 25·9 per thousand of the population.

PRINCIPAL DISEASES.

Fever.

According to the returns submitted year by year, by far the greatest mortality is due to fever, but the ignorant *chaukīdār* responsible for the returns is far from being a medical expert. Drawn as he often is from the lowest dregs of the people, he can diagnose only a few well-known diseases like cholera and small-pox, and many others are indiscriminately classed under the general head of fever. It is noticeable, however, that in Balasore the mortality ascribed to fever is exceptionally low. Since the present system of returns of vital statistics was introduced, the death-rate caused by fever has never been as high as 15 per mille; it has been known to fall as low as 11·4 per mille; and the average for the 10 years ending in 1905 has only been 13·3 per thousand of the population.

The fevers most prevalent are due to malarial affections, the commonest form being intermittent fever of a malarial type. Generally speaking, fever continues throughout the year, but the cold weather from October to March is the period of greatest intensity; practically all parts of the district are affected, but the Jaleswar thāna is the worst fever zone. Many parts of the district are low-lying, swampy and water-logged; and the houses, which are generally mud huts constructed from earth dug out of a hole in the immediate

vicinity, are surrounded by unhealthy stagnant pools, which furnish breeding places for the anopheles mosquito. Great difficulty is experienced in inducing the Oriyā to take quinine as a prophylactic, owing to his inherent prejudice against its use; but in 1904 and 1905 the free distribution of pice-packets to the poor met with some measure of success in the interior, where malaria was most prevalent. The town of Balasore has perhaps a greater immunity from fever than any other part of the district; and here steps have recently been taken to destroy mosquitoes as an experimental measure by a "mosquito brigade" working under the supervision of the Civil Surgeon; about 80 houses and compounds were cleared by the brigade in 1905, and the result was, on the whole, satisfactory.

Cholera. Before steamer communication with other parts of Bengal had been established and before the construction of the railway, cholera annually made its appearance along the Trunk Road together with the great stream of pilgrims travelling to Purī. It was ranked first among the scourges of epidemic disease, and the mortality caused by it was appalling. In 1853 it is said that it worked its way from village to village, till there was not a single hamlet that escaped it, and very few in which the mortality fell short of 10 or 12 per cent. The whole district was panic-stricken, and the villagers fled from their houses, leaving behind the dead and dying. Another terrible visitation occurred in the famine year of 1866, the severity of which may be gauged by the fact that 88 out of 100 prisoners in the jail were attacked and 35 died.

After steam communication between Orissa and Calcutta had to a large extent cleared the Trunk Road of pilgrims, the epidemics of cholera diminished, but in 1888 it was reported that the average mortality was about 5 per mille, reaching the excessive figure of 13·7 per mille in 1889. During the decade ending in 1900 there were again frequent epidemics, the worst outbreak being in 1892, when the disease was responsible for a mortality of 15 per 1,000, a rate which was exceeded during the decade only in a terrible epidemic in Purnea in 1900. Since the latter year cholera has been an annual visitation, the average death-rate during the 5 years ending in 1905 being 4 per mille, but there have been none of the terrible outbreaks which were formerly common. It usually makes its appearance immediately before and after the rains; and there can be little doubt that its prevalence is due to a bad and scanty water-supply. In many parts of the district the people have to undertake journeys of three or four miles in order to secure potable water; and it seems an unquestionable fact that the majority at least of the peasants drink all their lives from wells and tanks charged with organic impurities.

Diarrhœa and dysentery.

In common with the inhabitants of other parts of Orissa, the people of Balasore suffer greatly from diarrhœa and dysentery, but the number of deaths attributed to these affections has steadily decreased since the present system of reporting births and deaths was introduced in 1892. In the 5 years ending in 1896 the average annual death-rate was 3·6 per mille, in the next quinquennium it was 2·4 per mille, and in the 4 years ending in 1905 it fell to 1·8 per thousand of the population. The prevalence of diarrhœa and dysentery in Orissa has recently been made the subject of a special enquiry, the object being to ascertain whether their prevalence was as great as would appear from the high death-rate persistently returned or whether it was due to error on the part of reporting agency. The conclusions arrived at are that the high reported death-rate does more or less represent the state of affairs, and that diarrhœa and dysentery, particularly the former, are a frequent cause of death in this part of the country, their greatest incidence being in February and March. Dysentery is fairly common, but does not cause so many deaths as acute diarrhœa. The death-rate is, however, undoubtedly increased by the fact that typical and lingering cases of cholera are reported as diarrhœa. Infantile diarrhœa is extraordinarily common, and is the chief cause of the high death-rate, the returns of cases among children under 5 years of age being nearly equal to all those among persons over that age. Generally speaking, the cause of these diseases is the bad water-supply, the eating of new rice as soon as it is reaped, and the general ignorance of the people.

Small-pox.

Orissa has long had an unenviable reputation for the prevalence of small-pox, which breaks out in epidemic form nearly every year. These outbreaks are largely due to an ancient prejudice against vaccination and to the widespread practice of inoculation, which spreads small-pox among the unprotected. In Balasore, as in the other districts of the Division, the disease is an annual visitation, but the number of deaths due to it is far less than in either Puri or Cuttack. There were somewhat severe outbreaks in 1901 and 1902, causing a total mortality of 3,500, but since then there have been no serious epidemics; and in the 4 years ending in 1905 it accounted for an average mortality of only 650 per annum. This satisfactory result is due to the fact that vaccination is steadily acquiring popularity among the conservative Oriyās.

Other diseases.

Elephantiasis is common, but is not nearly so prevalent as has sometimes been represented. Thus, in the last Settlement Report (1900) it is stated that it is the most common of endemic disease and that nearly 30 per cent. of the population suffer from it; while in Hunter's Statistical Account of Bengal (1877) it is

said that elephantiasis attacks about 25 per cent. of the people and is always present in from 15 to 20 per cent. Regarding this statement, the following remarks of a former Civil Surgeon of Balasore may be quoted. After pointing out that this percentage would mean that one in every four or five persons in the district is subject to the disease, he remarks--"This, I believe, to be very far from the facts. In a household of from 20 to 30 domestics, one servant may be found with the complaint. In a jail of 80 to 100 prisoners, two or three may be found suffering from it. In gatherings in the streets and fairs I have never noticed so high a percentage as one in four or five of the people. I am of opinion that 7 per cent. would still be a high figure. That males suffer more from the disease than females is correct, and that it has a strong hereditary leaning is equally undoubted. One feature peculiar to the disease here is that the scrotum is seldom the seat of the disease, and rarely indeed do we see the large scrotal tumors seen elsewhere."

Hydrocele and syphilis are also common, but are not nearly so common as would appear from the Statistical Account of Bengal, where it is said that 20 per cent. of the people labour under hydrocele, and that as many as 40 per cent. of the population are victims to syphilis. The latter is an excessively high estimate; and though venereal diseases are certainly common, as will be apparent from the table at the end of this chapter, it is doubtful whether Balasore is worse than other parts of Bengal in this respect. A maximum of 10 per cent. would be a more reasonable estimate; and in the case of hydrocele, 7 per cent., though still high, would be nearer the mark. Cutaneous diseases are general among the rice-eating Oriyās; ague and rheumatic affections, with cold and catarrh, are also very prevalent.

Infirmities.

Orissa stands high among the localities in which leprosy is prevalent, and the proportion of male lepers in Balasore (187 per 100,000) is greater than in any other district in the Division; the percentage among females (53 per 100,000) is much lower. Insanity is comparatively rare, and the proportion of lunatics (24 per 100,000 males and 13 per 100,000 females) is far below the average for the whole Province. Blindness is also much less frequent than in either Cuttack or Purī, and in the census of 1901 it was found that the percentage of blind persons was only 45 per 100,000 males and 44 per 100,000 females; the corresponding figures for the whole of Bengal were 95 and 85 respectively.

SANITATION.

Organized and systematic schemes of sanitation are practically unknown outside the town of Balasore. Here a great advance has been made during the last 30 years. Writing in 1877, Sir William Hunter remarked—"Till lately no attempt was made at sanitation.

Balasore town contains no fewer than 11,000 tanks, not one of which can be said to be in a wholesome state. The banks are the receptacle of every sort of filth, fluid and solid. The one object of the Oriyâ's life is ceremonial purity, which he reconciles in a surprising degree with foul drinking-water and putrid dirt-heaps at his door." Since that time the sanitation of the town has been greatly improved in spite of the limited means of the municipality. Tanks have been cleared out, drains opened, and conservancy rules rigidly enforced. The drainage of the town is good, all surplus water finding a ready exit, and these natural facilities have been aided by the introduction of an extensive system of drains and by the removal of the old drains which terminated in cess-pools.

In the interior the state of affairs is very different. Wells have been sunk and tanks cleaned, but there has been no serious attempt to improve the conditions prevailing in the mofussil villages, while the apathy of the people and the unwholesome habits to which they are rooted render the task of village sanitation on any appreciable scale most difficult. Few villages have a pure and regular water-supply, and they all abound in filthy pits and hollows containing water of the foulest character and full of decaying vegetation which constitutes a standing menace to public health. The houses throughout the district are built of mud dug up from the vicinity; and the result is that in the neighbourhood of almost every hut or house there is a dirty pit, filled to overflowing with water in the rainy season, and the receptacle of every description of filth.

VACCINATION.

Vaccination is unpopular among all classes in Orissa, where the people are more conservative, less enlightened and more wedded to superstitious beliefs than in the neighbouring Province of Bengal. Inoculation has, on the other hand, been practised for ages past, and the people believe in it. They see that its effects are serious, and they think that the powers of the goddess of small-pox are manifested by the eruption; while, as its substitute is not followed by an eruption or, as a rule, by fever, they distrust its powers of protection.

The practice of inoculation.

The profession of inoculator is hereditary among the Māstān Brāhmans, who are found in scattered villages all over Orissa. Their working season is usually a short one, extending from about November to March. The material used is small-pox derived from a person recovering from an attack of variola discreta and removed on or about the 21st day of the disease. After removal, the crust is covered up with cotton-wool and placed in a small hollow bamboo which is closed with a sola pith cork. When required for use—and this should be, if possible, within 3

or 4 days after removal—the cotton-wool containing the crust is moistened with water and squeezed on to a snail-shell; and the turbid fluid thus obtained is used for the operation. The instrument employed is a small piece of iron, shaped like a miniature country nail-parer, with a sharp edge; with this the skin is notched until blood just appears in the scratch, and the watery fluid mentioned above is then applied. Formerly male children were generally inoculated on the forearm, and female children on the upper arm; but the Pāns, the hereditary inoculators of some of the Tributary States, select a spot on the forehead between the eyebrows as the seat of inoculation. Recently, however, owing to the prohibition of the practice, it has been found necessary to select some less conspicuous place, such as the back of the arm, knee or hand. Although there is no restriction regarding the age at which the operation may be performed, it usually takes place between the age of two and eight years, and in practice persons over 40 years of age are not subjected to it.

The operation is practically a religious ceremony. The day before it takes place a solemn offering is made to Sītalā, the goddess of small-pox, of which the essentials are coco-nuts, milk, treacle, curd, cheese, plantains, turmeric, rice, *duba* grass, plum leaves and vermilion. This *pūjā* having been completed, the child is inoculated, and incantations are made to Sītalā until the scabs fall off. Four or five days after the operation the inoculator visits the child and takes his fees; and he comes again and offers *pūjā* to Sītalā from the 9th to the 16th day, during the height of the eruption. Formerly this *pūjā* was performed openly with cornets and drums; but nowadays it takes place privately for fear of attracting attention.

After the operation the child is fed on cold rice and *feni* (a kind of sweetmeat), and has a bath daily until the eruption appears. The bath is then stopped, and rice, *dāl* and fried plantains form the dietary. During the period of convalescence the patient is humoured, dealt gently with, and never scolded, even if fractious, as it is believed that the deity presiding over small-pox is in the child's system, and any castigation or abuse might offend the goddess and draw down her wrath upon the child, in the form of confluent small-pox and death. It is also believed that the inoculators have the power of producing the exact number of eruptions which they promise before undertaking the operation; and they are credited with the power of allaying the intensity of the disease in a small-pox stricken patient. Their treatment consists in the administration of emetics and purgatives, by the action of which they believe the poison is washed away.

The danger of this practice in spreading small-pox scarcely needs illustration, but for many years past it has not been so prevalent in Balasore as in Cuttack and Purī, and it is gradually dying out. Vaccination has made steady progress among the people in spite of the fact that it is only compulsory in the Balasore Municipality, and the prejudice against it is disappearing. In 1905-06 altogether 30,600 persons were successfully vaccinated, representing 29·1 per thousand of the population, and protection was afforded to 242·6 per mille of the infant population. In the preceding 5 years the average annual number of persons successfully vaccinated was 37,360 or 35·56 per mille, as compared with the ratio of 33·2 for the whole of Orissa and of 31·1 for the entire Province.

MEDICAL INSTITUTIONS.

Thirty years ago there were only 2 dispensaries in the district, the Pilgrim Hospital and Dispensary at Balasore and a branch dispensary at Bhadrakh, and the total number of persons treated at them was only 4,000. The number of dispensaries, excluding the Police Hospital at Balasore, which is intended only for members of the police force, has now risen to 11, of which 4 have accommodation for in-patients. During the 5 years 1890-1894 (when there were only 8 dispensaries) the average annual number of persons treated was 21,000, but it was more than doubled in the quinquennium ending in 1904, when it amounted to over 43,000 per annum of whom 700 were in-patients. During the same period the daily average number of in-patients increased from 20 to over 23, the cost of diet of each patient being 2 annas per diem; while the daily number of out-patients rose from 118 to 205 and the average annual income from Rs. 11,000 to Rs. 18,000. Statistics for 1905 will be found in the tables at the end of this chapter.

The principal medical institution in the district is the Pilgrim Hospital at Balasore, which was established in 1853 with the object of affording medical relief to the pilgrims passing along the Trunk Road to Purī. Pilgrims formerly constituted the great majority of the patients, but since the establishment of through railway communication with Purī, their numbers have greatly fallen off and the hospital is little used by them. This hospital has accommodation for 39 (33 males and 6 females) indoor patients, and an annual average of 6,000 patients are treated. A new hospital, called the Central Hospital, is now under construction, which it is hoped will meet a long-felt want. The main buildings have been completed and have been in use since November 1905; including the beds in the Pilgrim Hospital, it contains 42 beds for male and 6 beds for female patients. The town also contains 2 dispensaries affording outdoor relief only, viz., Rājā Shyāmā-

nanda De's Dispensary and Rānī Srīmatī's Female Dispensary. The other dispensaries are situated in the interior at Bāliāpāl, Bhadrakh, Chāndbāli, Eram, Ghanteswar, Jaleswar and Soro. Of these the Bhadrakh Dispensary, established in 1868, has accommodation for 12 (8 males and 4 females) indoor patients and the Chāndbāli Dispensary for 18 (10 males and 8 females) indoor patients. The other dispensaries afford outdoor relief only. Recently also, as an experimental measure, an itinerant Civil Hospital Assistant has been appointed by the District Board to visit the markets in the Bhadrakh subdivision and afford medical relief to the poorer classes.

Among the medical institutions of the district may be mentioned the Pilgrims' Lodging House Fund, which contributes to the pay of the Civil Hospital Assistants in charge of the dispensaries at Chāndbāli and Jaleswar, keeps in repair the latter dispensary and that at Soro, and meets the pay of a compounder and sweeper at the two places last named. The Fund also provides for the cleaning of wells along the Trunk Road and for the up-keep of *chattīs* or pilgrims' rest-houses at Turkiā, Soro and Bhadrakh (Nayābazar). The annual expenditure averages about Rs. 2,500.

The following tables show the principal diseases treated together with the number of operations performed, and the receipts and expenditure of each hospital and dispensary during 1905:—

Name of Dispensary.		Diseases treated.					
		No. of operations.	Malarial fever.	Skin diseases.	Diseases of the ear.	Intestinal worms.	Venereal diseases.
Balasore	Pilgrim Hospital	599	312	190	101	157	483
	Central ditto ...	5	18	..	...	...	1
	Rājā Shyāmānanda De's Dispensary.	339	1,436	738	214	110	120
	Rānī Srīmatī's Female Dispensary.	39	294	109	101	47	64
Bāliāpāl Dispensary ...		121	1,067	1,074	214	171	55
Bhadrakh ditto ...		71	528	618	301	380	93
Chāndbāli ditto ...		196	3,053	826	264	688	848
Eram ditto ...		190	376	387	188	...	28
Ghanteswar ditto ...		170	1,014	584	188	93	40
Jaleswar ditto ...		149	896	644	158	386	124
Soro ditto ...		104	1,574	578	576	...	74
Total ...		1,983	10,568	5,748	2,305	2,032	1,930

Name of Dispensary.	Receipts.				Expenditure.	
	Government contribution.	District Fund.	Municipal Funds.	Subscriptions and other sources.	Establishment.	Medicines, diet, buildings, &c.
Balasore — Pilgrim Hospital ...	165	525	650	765	894	2,005
Balasore — Central ditto	5,000	640	225	620	104	1,458
Balasore — Rājā Shyāmānanda De's Dispensary	...	...	...	378	665	212
Balasore — Rānī Srimatī's Female Dispensary	...	...	...	...	420	124
Bāliāpāl Dispensary ...	...	822	...	33	670	185
Bhadrakh ditto ...	170	2,044	...	631	935	584
Chāndbāli ditto ...	40	1,624	...	542	1,104	419
Eram ditto ...	...	833	...	...	518	315
Ghanteswar ditto ...	...	...	...	668	485	183
Jaleswar ditto ...	...	...	...	1,153	843	310
Soro ditto ...	...	...	...	581	489	92
Total ...	5,375	6,488	875	5,371	7,127	5,887

CHAPTER V.

AGRICULTURE.

GENERAL CONDITIONS. AN account has been given in Chapter I of the three tracts into which the district is naturally divided, viz., the littoral, forming the sea-face of the Bay of Bengal, the submontane, under the western hills, and between them a zone of highly fertile land intersected by a network of rivers. To the east is a low-lying tract, a great part of which is impregnated with salt and unfit for cultivation, while much of the rest is exposed to damage from storm-waves. To the west is a jungly and uncultivable region of high undulating land covered with bamboos and scrub jungle. Between these two tracts lie the alluvial plains forming the greater part of the district, which present a gradual and steady slope from the high lands of the west to the sea, and a composition varying according to the relative proportion of the sand and silt of which they are formed.

Tracts of fertility. These three main divisions may, however, be subdivided for general purposes into smaller divisions. In the area lying between the Coast Canal and the sea, we find extending upwards from the river Gamai to the Burābalang, a great plain of grass lands, the grazing ground of herds of cattle and buffalo, with occasional sparse patches of cultivation and low scrub jungle upon the sand ridges and near the tidal streams. South of the Gamai between the protective embankment and the sea, the aspect of the country is the same. Between the Burābalang and Hāskurā there is a little cultivation immediately on the east of the canal, and beyond this is a network of tidal creeks fringed with heavy jungle. From the Hāskurā to the Subarnarekhā cultivation is met with inside the wooded sand hills which run in parallel ridges along the coast. At the mouth of the latter river and along the tidal creeks spreads an impenetrable jungle; and upon the north side the coast line is marked with sand ridges which protect the cultivated lands extending to the canal.

On the west of the district, where the boundary approaches the hills and the lands are higher, there is a reddish rocky soil, which is partially broken up to yield a scanty crop, and contains patches of jungle, including a little *sāl*, which rarely attains any

size. In other places, however, where the hills run precipitously down to the arable lands, the land is often of considerable fertility, as it is enriched by the vegetable matter washed down from the higher ridges.

The remainder of the district is a plain of arable lands, varying in level from the *pāts* or low lands, such as the Talhati in Bayang, the Ankura *pāt* and Babaria *jhil* in Kamardachaur, to the stretch of higher lands in the centre running from *pargana* Balikhand upwards, and widening towards the town of Balasore.

Balasore is a land of abundant rainfall. Since 1860 the average registered fall for the year has been over 60 inches; it has occasionally been as great as 80 or 90 inches and once (in 1862) was over 111 inches; and it has only twice been less than 50 inches. On the other hand, the rainfall is precarious, and an untimely or unequal distribution is liable to cause the partial or complete destruction of the crops, even if the actual fall does not fall short of the quantity required. A heavy shower in February or March is necessary to enable the land to be ploughed, but the most critical months are May, September and October. If the May showers, which are the precursors of the monsoon rains, do not fall, sowing may be prejudicially delayed; but deficiency in the rainfall in September and October is even more dangerous, as it affects the maturing of the staple rice crop. The most terrible famine the district has ever known was caused by the failure of the September and October rains in 1865. On the whole, it may be said that a well-distributed rainfall of 40 inches is sufficient to secure the crop, provided that not less than 4 inches fall in October; but in order to obtain a bumper crop at least 50 inches are required, of which 8 inches must fall in September and 6 inches in October. In the last 40 years, however, there have been 12 occasions, on which the fall of October has been less than 4 inches; and, generally speaking, the cultivators have to face the prospect of having once in every three or four years a rainfall less than the maximum compatible with the ripening of the crop, and of suffering a loss of at least a portion of the rice in the unirrigated lands.

Rainfall.

Besides this, the district is liable to inundation from the rivers overflowing their banks when swollen by heavy rainfall in the hills. It is only, however, when they are of an extraordinary height and of long duration, or when they occur so late as to render resowing impossible, that very serious and widespread damage is done by such floods. Provided that they are not too high or of long continuance, and that they come early in the season, they are productive of almost as much good as harm, as

the fertilizing silt they leave behind renews the productive powers of the soil and assures excellent harvests.

Irrigation. Owing to the ample supply of rainfall in ordinary years, irrigation is far less essential than in less favoured parts of the Province, and, except for the canals, it is comparatively little used. The area irrigated by the canals is practically all under rice, and water is taken from April to December, the demand for it being greatest in May and June, when it is required for ploughing the land, in July and August for loosening the soil at the roots of the young plants, and in October for the final ripening of the crop.

The rainfall is, however, generally so steady that it is only in exceptional years that there is any urgent need for canal water. The lower lands are very flat, and retain most of the rain-water; and there are only a few places where, in most years, artificial irrigation is absolutely essential for rice cultivation. Irrigation is carried on to a certain extent from the rivers, the river water being utilized for the crops near their banks, but tanks are seldom used for the purpose. In such cases, irrigation is generally confined to the more valuable crops, such as sugarcane, tobacco and cotton. Well water is not used for ordinary cultivation, but only for garden crops.

Water-lifts. In low-lying tracts water is taken from the small streams and creeks by means of the *tendā* or bamboo water-lift. This contrivance for raising water consists of two upright posts with a cross-bar which serves as a fulcrum on which a bamboo pole works; the latter is weighted at one end by a stone or mass of mud, and at the other a thin bamboo is fastened, with an earthen pot or bucket attached. When water is required, the cultivator pulls down the bamboo pole till the bucket is immersed; as soon as the tension is relaxed, the weight attached to the lever raises the bucket of itself, and the water is then emptied into the *nodhā* or pipe, which is generally the hollowed trunk of a palm tree, and is directed into the fields. When the field is any considerable height above the water, a platform is built on four stout bamboos on which a man stands to work the lever.

Where the water has only to be raised a few feet, it may be scooped up in a *senā*, a sort of basket made of split bamboo which two men use. Holding the ropes attached to either side, they swing it backwards, and bringing it down sharply into the water, carry the forward motion of the swing through, until the *senā*, now full of water, is raised to the level of the water-channel, when the contents are poured out. Another way of lifting water a short distance is with a scoop, called the *jantā*, which is made of a

single piece of wood about 6 feet long, hollowed out and shaped like one-half of a canoe, the broad open end of which rests on the head of the water-channel. The pointed closed end dips into the water, and when this is raised the water pours naturally into the channel. It may be worked by one man either directly or with the help of a bamboo crane and counterpoise, as is done with the *tendā*, but it cannot lift more than a couple of feet. Sometimes two of these methods are combined, the water being lifted by the *tendā* into a reservoir, and from that into the water-channel by a *senā* or *jantā*.

The arable land in the plains consists of alluvium in which sand and clay are intermixed in varying proportions; but the cultivators recognize a large number of different classes of soil, the names of which vary according to their situation, elevation and composition. In an ordinary village, the lands fall primarily under three main divisions according to their situation, viz., (1) The low lands retaining rain water, and hence called *jala* or wet lands, on which winter rice is grown. These lands predominate in the district and comprise the greater part of the whole cultivated area. (2) The high lands round the village homesteads, which being enriched by manure and household refuse, have a blackish colour and are therefore called *kalā*; they are devoted to vegetables, cotton, jute, and other valuable crops. The homestead land is also known by the generic name of *gharbāri*; and the land lying between this and the fields is called *gāntah*. (3) The riverside lands (*pāla*), which being periodically fertilized by deposits of silt are suitable for growing tobacco, cotton, mustard and other *rabi* crops. SOILS.

Arable lands are also classified according to their elevation, the low-lying lands being called *gahirā* and the high land *dānga*. High lands which are not enriched by silt and cannot retain water are contemptuously referred to as waste land (*thengā* or *thengi*). A further classification under which all lands fall is that of quality. The first class (*aul*) includes all soils which retain moisture up to the time when the ear is ripe; and alluvial and homestead lands also rank in this class on account of their special fertility. The second class (*doem*) includes land at medium level which retain moisture up to September. Inferior and sandy soils rank under the third class or *soem*. The soils are again divided into four great classes according to their composition, viz., (1) *matāl* or clay lands, (2) *dorasā* or loamy soils, (3) *bālā* or sandy lands, (4) *patu* or alluvial soils.

The ryots, however, recognize a large number of minor distinctions and give different names to the soils according to the

extent to which clay, sand, loam and silt predominate in their formation. *Matāl* is the name given to all kinds of stiff clayey soils on which rice and sugarcane are principally grown. *Chikitāmatāl* is a strong sticky clay, which is almost too stiff to be used for successful cultivation, and grows for the most part coarse varieties of winter rice. The outturn on such lands is said to be generally very poor. *Dorasā* is a mixture of sand and clay in nearly equal parts. It is used for *biāli* or autumn rice and for all *rabi* crops. It is easily worked and is retentive of moisture. *Telbāliā* is the name given to a loam which contains a larger admixture of sand than the *dorasā* lands. It is looser in texture, and being poorer, requires more manuring than the latter. *Bāliāmatāl* is a loam with a large admixture of earth; in other words, a rich sandy loam. *Bāliā* is the name given to very loose sandy soils which grow the poorer kinds of *rabi* crops. *Thengājamī* is an elevated sandy loam with very little moisture, which as a rule is allowed to lie waste. *Patu* is an alluvial soil, formed from silt deposited by floods. It is used for tobacco, jute, coriander and mustard, and is taken advantage of to grow all kinds of miscellaneous crops.

PRINCIPAL CROPS.

Rice.

The district contains fringes of jungle along the sea-board to the east and along the edge of the hilly country to the west, but elsewhere there is a vast rice plain. Rice, occupying 1,293 square miles or 91 per cent. of the net cropped area, is the all-important crop of the district. Except for narrow strips along the banks of the rivers and the little garden plots in the homesteads of the peasants, it may be broadly stated that the whole district produces rice and nothing but rice. The varieties grown are very numerous, but they all fall under one of three heads according to the season at which they are sown and reaped, viz., (1) *biāli*, or early rice, sown in May and reaped in August and September; (2) *sārad*, or winter rice, sown in May or June and harvested between October and January; and (3) *dālua*, or spring rice, which is sown in December or January after the floods have subsided and is harvested in March and April.

Winter rice.

The most important of all these crops is the *sārad* or winter rice, which is estimated to cover 1,025 square miles or 77 per cent. of the total area under cultivation. No less than 146 varieties of *sārad* rice are recognized locally, but there are three main classes, viz., *ashu*, *kanda* and *guru*. The former is grown on the high lands, *guru* on the low lands, which are covered with water for months together, and *kanda* on the lands at an intermediate level. Sowing takes place in May or June according as the rains are early or late, but the time of harvest varies for the different

varieties, the *ashu* being reaped in August or September, the *kanda* in September or October, and the *guru* from November to January. Where the land is high, the crop is sown broadcast, but in the low lands the seedlings are transplanted, as otherwise the water would wash away the seeds ordrown the early seedlings. The rice-fields vary in size, ranging from small plots covering $\frac{1}{25}$th of an acre to large fields occupying an acre of ground. They are enclosed on all four sides by small ridges (*hira*) about a foot in height and breadth, in order that the rain water collected in these artificial shallows may keep the plants wet; otherwise, the land losing its moisture, the plants would quickly wither and the ceop be lost.

Methods of cultivation. After the winter crop has been harvested in December, the cultivator is on the look out for the first shower of rain to plough his land. The time of ploughing necessarily depends on the rainfall, but if the cultivator is lucky, this occurs in February. As soon as the first shower falls, the country is covered with miserable looking half-starved cattle dragging primitive ploughs, which as a rule never penetrate a foot below the surface of the soil. The land is ploughed as often as the weather and the resources of the cultivator permit, but as a rule four or five ploughings are considered sufficient. The soil after being turned up is exposed to the action of the sun and wind, and those lands which lie beyond the reach of the fertilizing river silt are manured. The peasant then waits for the showers which usher in the monsoon, and starts sowing as soon as they appear in May or June. The plants germinate in 15 days, and consequently the earlier the seed can be sown and the stronger the young plants are when the rains set in, the better is the chance of a good crop. During the latter half of June and the first half of July the growth of the rice is helped by the monsoon rains, and the cultivators have little to do but watch the young plants growing up, mend the small ridges round the fields, and do similar odd jobs. During the rest of July and August, when the plants have attained a height of about 15 inches, there is the important operation called *beusan* (literally changing of place) to be performed. This consists of driving the plough through the young rice in order to thoroughly loosen the soil at their roots; the rice plants are then firmly replanted by hand and a sort of blunt harrow is driven over the field to level and consolidate it. The ridges enclosing the fields are then finally strengthened, the grass cleared away from them, and the weeds removed. For these operations an ample supply of water is necessary, and if this is available and there is sufficient rainfall in September and October, a good harvest is secured in the cold-weather months.

From the preceding account it will be clear that the time of sowing and reploughing are two important periods when the *sārad* crop requires water, but by far the most critical period comes in the middle of October, when its fate depends entirely on there being enough water to mature it and to fill out the ear. At the first period no artificial irrigation is possible, and the people depend on rain water. At the second and third periods lands commanded by the canals can always get a plentiful supply of water, and under normal conditions the other lands also get sufficient rain water; but in years of deficient or unevenly distributed rainfall the people are obliged to irrigate the crop from every available source.

Nearly all the *sārad* rice is broadcast, transplantation being an unpopular system of cultivation, as it involves more labour and the transplanted seedlings are very delicate for the first month and liable to injury by flood and still more by drought. It is, however, admitted that, when successful, transplantation gives a larger yield, and it is resorted to for fields, especially for those under irrigation, which grow a *sārad* crop after *biāli*, to avoid the risk of early floods and to replace the loss of the broadcast crop if it is destroyed before the end of July. The seeds are sown either wet or dry in a nursery, which is generally a field near the village well manured and fenced in to keep off jackals and other animals. The land is carefully watered, and when the seedlings are a month old, they are transplanted into the rice-field. The latter is prepared by ploughing and manuring in the same way as for broadcast rice, and is once again ploughed and harrowed before the young plants are planted. The seedlings are ar[illegible] in bunches of three or four plants with a small space betw[illegible] bunch; the roots are carefully imbedded to the depth [illegible] of inches; they are then left, and require no furth[illegible] beyond a good weeding and a copious supply of [illegible] The earlier the transplantation is done, the better the r[illegible] and the proper time is considered to be from the middle [illegible] to the middle of August.

Biāli rice. The *biāli* or early rice, which covers an area of 168 square miles, ranks next to *sārad* rice in importance. There are two main classes of *biāli*, viz., the early variety, called *sāthikā* from the fact that it comes to maturity 60 days from the date of sowing, and the *bara dhān* ripening about a month later. Both varieties are sown broadcast and are grown on the higher lands of the villages, and for preference in a light loamy soil. The whole crop is more precarious than the winter rice, being injuriously affected by drought in June and July, and being also liable to destruction

by heavy floods early in the season. A failure of this crop does not, however, affect the people very seriously, as they can generally be recouped for its loss by a good harvest of winter rice. If the *biāli* is damaged by a deficiency of rain or by inundation and there is no time for resowing, the lower lands at least can be sown with *sārad*, which with seasonable rainfall gives a good harvest, and so makes up for the loss occasioned by the loss of the early rice. On the other hand, if the rain is well distributed in the early part of the season but fails at its close, a bumper crop of *biāli* will, in part at least, compensate for the *sārad* crop being spoilt.

Dālua is a coarse variety of rice, which is grown on low swampy grounds and on lands too heavily water-logged to yield *sārad*. *Dālua rice.* Clay lands subject to tidal inundation are commonly chosen for the purpose, as it requires a low level and facilities for irrigation. It is sown in the winter and reaped in the spring, and a good supply of water is therefore necessary. The crop may be either transplanted or broadcast, but the former method is the more common. A nursery is selected in the corner of a field or tank, in which the seedlings remain till they are about a foot high; they are then imbedded in the rice field, which has been ploughed till it is a pulpy mass, and this is kept covered with water till the seed flowers. It ripens in March or April, and the crop is then cut.

The area under *dālua* rice is insignificant, and it is mostly grown in the south of the district. Although, however, the normal area under it is small, it is sown very largely when there is a failure of the *sārad* rice; thus, after the year 1895, when the *sārad* crop was destroyed, 2,000 acres were brought under irrigation from the High Level Canal, and the area irrigated from other sources was probably as great.

The other food-grains are of minor importance, occupying only 12,000 acres, and call for only a brief notice. *Other cereals and pulses.* They include the crops known as *mūga*, *bīrhi*, *kulthī*, *chīna*, *arhar*, maize and wheat. *Mūga* (*Phaseolus Mungo*) is a pulse largely consumed by the poorer classes; it is sown broadcast in August and September and reaped in December or January. *Bīrhi* (*Phaseolus radiatus*) is also sown broadcast in the rains, and, like *mūga*, yields a little round pea which is eaten as a pulse in the form of *dāl*. It is grown after *biāli* rice, where the land is rich enough, and is found chiefly in inundated areas. *Kulthī* (*Dolichos biflorus*) is another pulse which is one of the cheapest *rabi* crops. It is sown in November and cut in February, and is commonly eaten in the form of *dāl* by the poorer classes. *Chīna* (*Panicum miliaceum*) is a cereal sown in August and September and reaped

in December. *Arhar* (*Cajanus indicus*) is sown in June on the *kalā* lands, *i.e.*, the high homestead lands, and is harvested in December. Indian corn or maize (*makai*) is sown in July and the cobs are plucked in September. Wheat is an insignificant crop, being grown on only 100 acres.

Oil-seeds. Of all the oil-seeds, mustard and rape cover the largest area, being grown on 7,000 acres. Mustard is grown on the riverside lands which are enriched with silt; it is one of the most valuable of the *rabi* crops. *Til* or gingelly is raised on 2,100 acres, linseed on 100 acres, and the total area under all other oil-seed crops is 2,400 acres; the most important of these is the castor-oil plant, which is usually found on homestead lands or in sandy fields along the beds of rivers, it being a peculiarity of the plant that it will grow in a depth of sand which would kill other crops.

Jute. The chief fibre crop is jute, which is grown on homestead lands with facilities for irrigation or on rich alluvial soil by the river side. Its cultivation has expanded very greatly in recent years. Ten years ago the area under this crop was only 140 acres, whereas it is now more than 4,000 acres. This rapid growth of jute cultivation is due to the high prices now obtained for the product, which sells for Rs. 6-8 to Rs. 7-8 a maund, while paddy only commands Rs. 2 to Rs. 3 a maund; and if the Balasore ryot continues to extend the cultivation of this paying crop in the same way, it may be anticipated that the growth of the industry will result in his becoming a man of substance instead of one of the poorest of Indian tenantry.

The only other fibre crop is cotton, which, like jute, is grown on homestead or riverside land; the area under cotton is however insignificant, amounting only to 300 acres.

Sugarcane. Of the other crops, the important is sugarcane, which covers 2,000 acres. The plant requires a loamy soil and is grown generally on lands near the village and within easy reach of canal irrigation, or on the edges of natural watercourses, where the land is out of the range of canal water. It is a crop requiring incessant attention and involving a large expenditure of time, labour and money. The field has to be ploughed some twenty times and richly manured before the cuttings are planted in January or February. Then constant irrigation is necessary, and the soil has to be loosened, and oil-cake and mustard oil applied to the roots. These processes are repeated at intervals, the land being irrigated so as to keep it continually moist; and after the fourth application of oil-cake in May or June, the soil is loosened by the plough and the land weeded. The stems are then wrapped in sugarcane leaves and tied up; after another

weeding in August the leaves are bound together and the plants tied together in fours to give them greater power to resist the storms. Finally, in December the canes are cut down and the juice is extracted. The mills used for this purpose are extremely primitive, the old wooden mills which extract only a fraction of the juice being employed, and the use of the improved Bihiā roller mill has not yet become general. It is a crop which exhausts the ground, and land which bears it for two years has to be left fallow for the third.

The tobacco plant, commonly called the *dhuānpatra* or smoke leaf, is grown on a very small area (100 acres). It requires a rich loamy soil and a plentiful supply of water, and is only raised on rich silt-covered lands on the banks of rivers and in the depressions of the big flooded *pāts* or drainage lines. Indigo was formerly raised on the banks of the Subarnarekhā, where 4,000 *bīghas* were planted with it; its cultivation has been given up for many years past. Other crops.

The cultivation of the climbing vine called *pān* (*Piper betel*), the leaves of which are used to wrap up the *supāri* or areca-nut chewed by natives of all ranks and classes, is not extensive, but its history is of some interest. It was introduced by some men of the Bārui caste who came from Bengal and settled down in Balasore, and it is still grown for the most part by men of this caste. The gardens in which the creeper is grown are situated chiefly in Bhogrāi, Dhāmnagar and Bhadrakh; they are carefully fenced in and covered with a thatched roof, the *inkar* reed, which is grown on wet lands in their vicinity, being used for thatching the outer fence and as a support for the plant. It requires the most careful cultivation, but the crop is extremely valuable, and the large profits amply repay the labour and expense which it entails. It is estimated that during the eighteen years, which may be taken as the average life of a garden—at the end of that time it grows to an unmanageable height and has to be abandoned,—the cultivator obtains a net annual income of Rs. 131 for one *gunt* or ·08 acre of land. Betel.

The most important of all the garden crops is the *brinjal* or *baigun* (*Solanum melongena*), and its cultivation is general. The *sāru* or caladium (*Colocasia antiquorum*) produces a tuber which is very largely eaten by the people. Onions are common, and cucumbers of many kinds are grown in homestead lands and may be seen climbing over the roofs of the houses in nearly every village. Pumpkins and melons are also very generally grown; nearly every cultivator has plants in his homestead, and they are also raised on a larger scale on sandy riverside lands. VEGETABLES AND FRUITS.

These vegetables are grown most largely in Remunā, Phulwār and Kemdi for the supply of the Balasore market, and in Randia-orgara, Sanaut and Dhāmnagar for that of Bhadrakh.

The most popular fruit is the plantain, which is grown in nearly every part of the district; it is eaten as a fruit and also with curries, for, like the *brinjal*, it forms the basis of most of the vegetable curries which please the palate of the Oriyā. Mangoes grow freely and form a very valuable addition to the food of the people during the hot weather, though their quality is decidedly inferior to the Mālda and Bombay varieties. The trees seem to thrive in south and east winds, and a west wind blowing constantly when the tree is in blossom destroys all promise of a good crop. Pine apples are grown in many villages, but are not plentiful enough to form a very valuable article of food. Among other fruits are the *bel*, jack, tamarind, Indian plum, custard apple and papaya. Spices, turmeric, chillies, coriander and ginger, which are used largely in cooking, are grown to a certain extent. There are altogether 50,000 acres under garden crops and orchards. Generally speaking, the fruit crop of the district is precarious owing to the prevalence of storms in March, April and May.

EXTENSION OF CULTIVATION.

In the beginning of the 19th century the district had been reduced to a terrible state of desolation by the tyranny of the Marāthās. The hereditary heads of the people had fled to the Garhjāts, where the independent tributary chiefs gave them protection in their hilly and jungly retreats; no land-holders could at first be found to engage for the lands; the ryots had found from bitter experience that they could get land on more favourable terms in the hills and had better prospects of enjoying the fruits of it; and the population was consequently insufficient to till the fields. A traveller who visited Orissa in 1806 found himself in danger of wild beasts from the moment he entered the Province. Between Balasore and Cuttack, in a country now thickly populated and closely cultivated, he passed through a jungle abounding in tigers and required a guard of sepoys for the journey. Since that time, cultivation has extended steadily under a settled government, though it was at first impeded by frequent droughts, by the injudicious settlements made in the early years of British administration, and still more by the terrible cyclones of 1831 and 1832, when the sea-face was depopulated and large tracts of land were thrown out of cultivation. Since then there has been a great expansion of cultivation, and at the settlement concluded in 1900 it was found that the cultivated area had increased by no less than 40 per cent. in the preceding 60 years.

The extension of cultivation has been greatest in the north of the district, where cultivation was in a backward state and the population was comparatively sparse, as indeed it still is; here the increase has been as great as 120 and 180 per cent. respectively in *parganas* Bhogrāi and Sahebandar. It has been least in the lower central *parganas*, where there is little jungle left to reclaim, and where cultivation was in an advanced state even 60 years ago. Here the area open to a further extension of tillage is very small, and in the south-east of the district the liability of the country to floods prevents new areas of any large size being brought under the plough. Cultivation is, however, extending in the upper central *parganas;* and in the north of the district there is much virgin soil of excellent quality awaiting the advent of settled cultivation. In this tract a considerable area on both sides of the Subarnarekhā has already been reclaimed within recent times. These lands are protected by small embankments, which serve the double purpose of excluding the water of the tidal streams, which is brackish during the hot weather, and of retaining the water admitted during the rains. The lands are covered with heavy jungle, which the tenant proceeds to clear after he has obtained a *patta* by the payment of *salāmi.* He is allowed to hold the land rent-free for three or four years, during which period the exclusion of salt water by the construction of an embankment renders the soil fit for cultivation. The lands are then charged with a rent of 4 annas an acre, rising after three years to the full rate of between Rs. 2 and Rs. 3. Such land has a rich virgin soil of excellent quality, and though the first crop, sown among tree stumps and patches of grass, is scanty, the lands, when fully broken up, yield an outturn sometimes exceeding 30 maunds of paddy to the acre.

On the whole, cultivation has extended more rapidly in Balasore than in any other district of Orissa. The canal system does not appear to have been a special cause in this extension; the increase has been no greater in the protected and irrigated areas than elsewhere; and the enquiries made on the subject have failed to elicit any evidence of a substantial extension of cultivation to lands which but for the canal water were not likely to have been reclaimed.

At the present day, the area under cultivation in the whole district is 913,300 acres; there are only 55,900 acres of culturable waste, and the area not available for cultivation amounts to 300,000 acres.

IMPROVED METHODS OF CULTIVATION.

The Oriyā is a very conservative cultivator and has an apathetic indifference to agricultural improvements. Various experiments have been made from time to time at the instance of Government

with new crops, selected seed and modern implements, and an experimental farm has been started; but these experiments have had little effect on cultivation generally. The people still adhere to their old-fashioned ploughs, which turn up scarcely 6 inches of earth; and nothing shows their conservatism more clearly than their failure to adopt the improved sugarcane mills which have become popular almost everywhere else in Bengal. A few of the Bihiā iron sugar-crushing mills are found round Bhadrakh, but elsewhere the ryot keeps to the old wasteful wooden mill.

This want of progress is due to the fact that centuries of inherited experience have taught the cultivator to raise the best crop possible for the minimum of labour which he is willing to bestow, and he regards with disfavour any change involving an increase of labour. He can secure improved crops without increasing his exertions, by the use of improved seed and labour-saving appliances; but these he will not introduce. Such conservatism is due to the natural idleness and apathy of the Balasore peasant, whom one account describes as "bigoted, wedded to custom, indolent and poor in the extreme." His dislike of new methods is also largely due to the fatalistic spirit produced by the liability of the district to suffer from natural calamities. "It is no wonder," says the Settlement Officer, "that the ryot whom the inclemency of the season may deprive of half his produce in the year should exhibit little desire for improved agricultural methods. They may yield him a few extra maunds, —no more increase than he can look for in a season which may turn out specially favourable; and the whole benefit of them may be lost, if the crop is to be destroyed by flood."

Loans Acts.

Regarding the working of the Loans Acts, the following remarks of the Settlement Officer may be quoted:—"The Land Improvement Loans Act provides for advances to any person legally entitled to make improvements, or with his consent, to any other person. The Act was intended to provide chiefly for the excavation of tanks, for reclamation, and for the erection of embankments for the purposes of irrigation. No advantage whatever of it has been taken in this district, and no loans have been granted since the law came into force. This result is due to the ignorance of the tenantry regarding the existence of the Act, and regarding their legal right to make improvements and the extent to which they would reap advantage from them, as well as to their general apathy and poverty. The zamīndārs, on the other hand, are averse to spending considerable sums on improvements which would yield them only an indirect return considerably less than

they derive from ordinary investment. The decline of public spirit amongst the land-holding class is very marked in this district. Everywhere are to be seen large tanks which have been allowed to fall into disrepair, and often deliberately rendered ineffectual for irrigation purposes by a cut in the embankment. The water is thus partially drained, and the tank which once sufficed to irrigate 40 or 50 acres is now cultivated for a scanty crop of *dālua* rice. Nowhere is the neglect so apparent as in the neighbourhood of Soso, where half a dozen such tanks, most effectually situated for the purposes of irrigation, are to be observed within the radius of half a mile. They are now half-silted, abandoned and neglected. It is not likely that the ryots should make any attempts to remedy this state of things unless they are encouraged by the example of their landlords. I am not aware of a single estate in this district where the zamīndārs have made any attempt worth notice towards the improvement of agricultural conditions. Even the old village embankments have almost everywhere fallen into neglect and inefficiency since they were abandoned by Government.

"S.nce the Agricultural Loans Act came into force in 1885, it has done some useful work in this district. The Act is chiefly directed to supplying the wants of tenants in the matter of seed and cattle, and resort is constantly made to its procedure in the times of distress following flood."

The same conservatism in noticeable is the use of manure, for though the Oriyā is to a certain extent alive to its advantages, he will not use it unless his ancestors have done so, and applies it less freely than the cultivators in other districts. As in other parts of Bengal, cow-dung is the most important manure, but its value is much diminished by the negligent manner in which it is stored, and the feeding of cattle is so poor that it is not rich in manurial constituents. Besides this, a great deal is lost by its conversion into fuel cakes, as, except in a few favoured localities, firewood is scarce and its high price renders its use prohibitive for the ryots. For the most part, therefore, cow-dung only finds its way to the soil in the form of ashes; and the only other manure in common use consists of household refuse. These manures are spread on the rice lands at the time of the first ploughing, and are also applied to sugarcane, betel and vegetables. Oil-cake is also occasionally used as a top dressing for these valuable crops. A strong prejudice exists against the use of night-soil and bone-meal, and chemical manures are practically unknown. The feeling against the use of bone-meal is particularly intense. In selecting a site for a building the greatest care is

Manures.

taken to remove all bones that the land may contain, as they are supposed to bring about ill-fortune and to cause the inmates of the house to die without heirs. The more superstitious even go through certain ablutions and ceremonies before re-entering their houses, if they happen to stumble across a bone in their fields.

Rotation. The scientific rotation of crops is not adopted as a principle of cultivation, but as a matter of practice rotation is observed in the case of the more exhausting crops. Sugarcane is never grown on the same land year after year, and when cultivated on *sārad* rice lands, it is alternated with paddy or follows a fallow, and is only grown on the same land once in four years.

CATTLE. The cattle are similar to those found in the southern districts of Lower Bengal, but, owing to deficiency of pasture, the stock is generally poor. Pasture grounds abound on the sea-board and along the foot of the hills. During the hot weather large herds of cattle are grazed in the low-lying lands on the coast, and in the rains are driven to the uplands on the west where there is good pasturage in the hilly ravines. Elsewhere the ground retains little moisture during the hot weather, and the grass being parched up by the burning sun, fodder is scarce. Cultivation has encroached on the grazing lands for many years past, though much has been done in the course of the recent settlement to reserve lands for pasturage; and the cattle have to be content with the dry stubble of the fields and such scanty herbage as they can find on the roadsides, river-banks, tank-banks and the boundary ridges of the fields; even the straw which might eke out the scanty supply of grass is largely used for thatching purposes. They are partly stall-fed on chopped rice straw while at work, but at other times have only what they can pick up in the fields or in the patches of waste found here and there, and they return home almost as hungry as when driven out to graze. They are generally under-fed and miserably housed, and no attempt is made to improve the breed or to prevent it from degenerating.

Buffaloes are bred for the milk which they yield in large quantities, but are not used for agricultural purposes. The sheep bred in the district are small in size with a short rough wool. Goats abound, but are also small. Pigs of the usual omnivorous kind found everywhere in Bengal are bred by the lowest castes, especially as Ghusuriās, the swine-herd caste of Orissa. The only horses are the usual indigenous ponies; they are few in number under-sized and incapable of much heavy work. They are broken in when two years old, and are frequently starved or worked to death before the age of seven or eight.

Rinderpest is the most prevalent disease among cattle. In 1903-04 there were altogether 1,240 cases—a total exceeded only in two other districts in Bengal,—and in 1905-06 there were no less than 3,260 cases, or over one-third of the total number of cases reported for the whole Province. Veterinary relief is afforded at a veterinary dispensary at Balasore, where over 1,700 animals were treated in 1905-06. **Veterinary relief.**

CHAPTER VI.

NATURAL CALAMITIES.

[L]IABILITY [T]O [N]ATURAL [C]ALAMI[T]IES.

FLOODS and droughts both occur in the district. The former result from the sudden rising of the rivers, which have their source in the hilly country to the west. In the hot weather they are nearly dry, and their beds consist of vast level stretches of sand, striped by long reaches of land-locked water, through which small streams meander from bank to bank. But in the rainy season, and especially after a storm has burst in the hills, they present an extraordinary contrast. They rise to a great height in a few hours, rush down with extreme violence, and cause floods, which are frequently of short duration, but quite unmanageable while they last. These rivers drain a large area, and the result is that they bring down an enormous volume of water, which the lower channels are often unable to discharge, and which spreads over the country far and wide except where it is checked by embankments.

Droughts are due to the deficiency of the rainfall. In most years the rainfall is sufficient for the needs of the district, but it is precarious, and its early cessation is fatal to the rice crop, on which the people depend. Practically the whole of the cultivated area is under rice, and other crops are scarcely grown at all. By far the greater part, moreover, of the rice crop consists of the winter or *sārad* rice; the autumn rice is comparatively a small crop; it is not grown at all in some parts, and it can nowhere make up for the loss of the winter rice. If that fails, everything fails.

There is, however, to a certain extent, a compensating influence in droughts and floods. While heavy floods drown the lowlands, the higher levels escape; though the fertility of the uplands is not increased in anything like a proportionate degree, as the very fact of their being higher causes the river water to flow off the more rapidly. If the floods are caused by an excessive local rainfall, as occasionally happens, the dry uplands are greatly benefited, but their extent is so small that their increased fertility does not compensate for the loss of the crops in the low-lying tracts. The

district does not present such extremes of dryness or moisture, that any considerable area ordinarily lies fallow in the uplands for want of rain, or upon the lower levels on account of the marshy character of the land. In years when there is a scanty rainfall, however, the low-lying tracts make up, in an important degree, by their freedom from flood, for the loss of crops in the arid higher levels. The *pāts* or cup-lands produce magnificent harvests in dry seasons, while the higher tracts suffer severely. It may accordingly be accepted as a rule in Balasore, that in years of drought the sterility of the higher levels may often be compensated by the increased fertility of the lowlands. But in years of excessive floods the small amount of upland country cannot produce an increased outturn in any way commensurate to the loss of crops in the low-lying tracts. Generally speaking, therefore, a year of flood does more harm than a year of moderate drought.

Besides droughts and floods, the district is liable to a third form, and that perhaps the most appalling form, of natural calamity. Placed at the north-west corner of the Bay of Bengal, it is exposed to the full brunt of the cyclones, generated at sea, which travel in a north-westerly course up the Bay, and sometimes burst upon its shores accompanied by irresistible storm-waves.

CYCLONES.

These cyclones are generally generated during the transition periods antecedent and subsequent to the full establishment of the south-west monsoon, *i.e.*, during the months of April and May, October and November. Their most striking features are the great barometric depression in the centre and the magnitude of the storm area. These two causes produce a large accumulation of water at and near the centre, which progresses with the storm and gives rise to a destructive storm-wave, when the centre reaches the shelving coast. It then sweeps inland, and the damage caused is terrible and widespread.

Cyclones of 1823, 1831 and 1832.

Such destructive cyclones are fortunately rare, but so far back as we have records, we find that they have periodically devastated the district. On the night of the 27th May 1823 there was a furious cyclone, which is said to have been the third calamity of the kind within eight years. It is related that the sea suddenly rose and penetrated six miles inland, carrying with it large ships and sweeping away whole villages with every living creature in them, not even the vestige of a human habitation being left. But the severest disaster of this kind on record occurred on the evening and night of the 31st October 1831. Along the whole extent of the coast the country was submerged by a storm-wave 7 to 15 feet in height, which breached the Trunk Road at a point nine miles, as the crow flies, from the coast.

According to an early account, "the whole country, for many miles on the sea coast, was inundated, and in this district alone, upwards of 22,000 lives were lost, and more than 50,000 head of cattle. The hurricane commenced in the north-east and blew from all points of the compass before it terminated—not only no houses, except those pucka built, were left standing, but the whole district suffered more or less; the damage to property, and loss of life was enormous. Mr. Ricketts, at that time Magistrate and Collector, made a circuit of the district immediately after the storm, and the names of more than 20,000 were registered as having perished. It is asserted the whole country was deluged by two successive waves, which carried everything before them. Many a poor wretch was overwhelmed ere he could reach high ground, or even ascend a tree. Dead bodies of men, women and children were found after the storm, interspersed with those of wild beasts, birds and bullocks. The wind blew at times with the greatest violence; sturdy trees that had borne the blast from many a long day were uprooted; pillars erected hundreds of years since were levelled with the ground; two of the walls surrounding the jail were blown in, and one out; an iron suspension bridge was blown from its moorings and carried some distance against the stream. The weather for two or three days previous to the storm looked cloudy and threatening, the following morning was clear and beautiful. The country looked as if it had been burnt up, every bush and blade of grass was blasted."

The distress and difficulties occasioned by this storm were scarcely surmounted, when a second great cyclone occurred in October 1832. On this occasion the cyclone is said to have been more violent, but the storm-wave less destructive. These calamities were followed by a drought in 1833, by which the failure of the food supply was superadded to the destruction of the rice crops by the cyclones. In these three years 50,000 human beings were destroyed by drowning and starvation. The whole sea-face was depopulated, in some parts no vestiges of cultivation or habitation remained, and many estates have never completely recovered.

[C]yclones [of] 1872, [18]82 and [18]85.

During the last sixty years, the district has not suffered to any great extent from the violent cyclonic storms which caused so much loss of life and property during the first half of the 19th century. The most violent of recent years are those which occurred in 1872, 1885 and 1887. In 1872 the storm was accompanied by a tidal irruption all along the coast, and some lives and a great number of cattle were lost. That of 1885 did far less damage in this district than in Cuttack, where a storm-wave 15 feet high, which broke over False Point on September 22nd, submerged 250 square miles and drowned about 5,000 persons. In Balasore the only tract

which suffered severely from this cyclone and sea-wave was the Government estate of Birso, where most of the tenants lost all or nearly all their crops. Here, as in other parts of the district over which the cyclone passed, a large number of houses and trees were blown down by the wind; the Engineer's house at Akshuāpadā was entirely wrecked and its roof carried away bodily, the Europeans (one a lady), who were inside the house, being driven outside and exposed for hours to the violence of the storm and wind. With these exceptions, the sea-coast of Balasore, which is for the most part uninhabited and covered with jungle, did not suffer seriously, for the storm-wave was stopped by the embankment of the sea-coast canal, which saved hundreds of square miles from being submerged by salt water. The last great cyclone was that which burst upon the coast in the early morning of the 26th May 1887, when the sea swept over the coast canal embankment and penetrated within 2 miles of the town of Balasore.

FLOODS.

It has already been mentioned that the rivers of the district are liable to floods, which are generally caused by sudden freshets before they enter the district, but are also sometimes due to excessive rainfall within it. The water which is poured down upon the plains from the western hills greatly exceeds the volume which the lower channels are able to carry off. The rivers issue from the hills heavily laden with silt; they have a rapid flow in their upper reaches, but when they reach the level plains, their speed is reduced; and their torpid current is no longer able to support the solid matter hitherto held in suspension. They accordingly deposit it in their beds and on their banks, which are thus gradually raised; and their channels proving insufficient to carry off the great volume of water which comes down after heavy rain in the table-lands of Chotā Nāgpur and the Central Provinces, they spill over their beds to a greater or less degree according to the chances of the season.

To the north the Subarnarekhā is frequently swollen by floods, which generally penetrate 4 miles from either bank and have been known to travel inland as far as 12 miles. The next river to the south, the Hāskurā, also occasionally causes considerable damage in the rains, when it carries away a large portion of the Subarnarekhā flood. The Burābalang again is liable to sudden floods, but the area liable to inundation is not extensive, lying chiefly to the north and north-west of the town of Balasore. Further to the south is the Kānsbāns, which is formed by the confluence of a number of hill streams, rising in the Tributary States. They drain a large area, and after heavy rains in the hills rush down with great violence and in considerable volume. These sudden

floods sometimes spread over a considerable area, but fortunately they seldom do much damage, as the water subsides quickly. The same may be said of the Sālandī, which also brings down a considerable flood, but rarely causes damage.

It is far different with the Baitaranī on the southern boundary of the district, which contains very little water in the hot weather, but passes an enormous volume in the rains. Down to Akshuāpadā the northern bank is protected by an embankment, but below this the whole country-side is exposed, while the embankment on the southern or Cuttack side prevents the discharge of water in that direction. The flood travels inland for 4 miles on the average, and sometimes as far as 8 miles; and in the rains the country from Dhāmnagar to Chāndbāli is a great sheet of water. A great portion of the south of the district is thus exposed to inundation almost every year, and the effects are more disastrous than in the north, where serious floods are of less frequent occurrence.

It would be a mistake to suppose that the floods are always destructive. They undoubtedly do harm in many ways, and the greatest of them have caused widespread havoc and destruction; but provided that they are not of long continuance or of great height, and that they come pretty early in the season, these inundations are productive of almost as much good as harm, as they are usually followed by excellent harvests. In many places the receding waters leave a fertilizing deposit of silt, which renews the productive powers of the soil and is of much benefit to the crops; and even the highest floods are of service, as their scouring action results in the clearance of silt on a large scale, and thus increases the capacity of the discharge of the various channels. It is only when their duration or height is extraordinary, or when they occur so late as to render re-sowing impossible, that very serious and widespread damage is done. A low flood or one of short duration does little harm, but the high floods which sweep across the rice-fields do great damage to the standing crop, as they generally occur in July, August and September, when the rice is in the first vigour of its growth or is in flower or nearing maturity.

The people of Orissa are accustomed to such visitations; they take shelter for the time being in comparatively high lands with their property and cattle, and after the subsidence of the water, they repair or rebuild their huts and transplant new seedlings in places where the crops are destroyed. Occasionally, however, the floods are so heavy and so prolonged that some parts of the country remain under water for weeks together, and the crops are destroyed or seriously damaged.

So far, therefore, as the effect on cultivation is concerned, the duration of a flood is almost of more importance than the maximum rise, and the period of the season at which it may occur is of even more importance. For this reason, the flood of 1868, which occurred after a fortnight's heavy rain and was the highest within the memory of the people, did not do much damage; it occurred in June, and the crops consequently did not suffer very greatly, though every river in the district overflowed. **Flood of 1868.**

In recent years the most disastrous floods are those which occurred in 1896 and 1900. In 1896 very great damage was caused by exceptionally heavy and prolonged floods; the country was under water for nearly a month, and the loss was therefore exceptionally great. The inundations were due to the rising of the Subarnarekhā in the north and of the Baitaranī in the south. The flood in the Subarnarekhā began at the end of July, and when the water had subsided a little, attempts were made to repair the damage done and to transplant new seedlings; but in the last week of August the river again rose, sweeping away nearly all the transplanted rice. The central parts of the district along the Burābalang and Sālandī suffered less than the northern tract, where about 300 square miles were inundated; but the south was seriously affected by the floods of the Baitaranī river, and much damage was done to the standing crops. Some lost their houses and property, and there was more or less distress in all the tracts open to the ravages of the flood. Very little of the *bhadoi* crop was reaped, and the difficulties of the people were aggravated by the loss of the winter rice crop, for the fields had to be resown late, and a drought from about the middle of October to January was fatal to its growth. The result was, as described later in this chapter, a certain amount of scarcity and considerable distress among the poorer classes. **Flood of 1896.**

The last great flood occurred in the year 1900, when the water rose 18 inches higher than the highest flood previously recorded. Prompt measures were taken for the relief of the sufferers; boats were sent out to rescue the homeless ryots whose houses had been washed away; and they were brought into Balasore where they were clothed and fed until they were able to return to their villages. There was little loss of human life, but a large number of cattle were drowned, and special measures had to be taken to dispose of the carcasses which were found lying round the villages when the flood subsided. The agricultural embankments were breached and the crops suffered severely, especially in the western part of the district. The railway line was also breached in **Flood of 1900.**

several places, and the running of trains from Balasore to the north was stopped for some time.

FAMINES.

Early famines.

Previous to the inception of the Orissa canal system, droughts and famines were of frequent occurrence. Historical records show that terrible famines occurred in the 14th, 15th and 16th centuries; and during the rule of the Marāthās the district suffered grievously from repeated famines. In the memorable famine of 1770 the land lay untilled, rice was not to be had at two seers per rupee, and while the people were dying by hundreds of thousands, the Marāthā soldiery plundered and devastated the country. In 1780 the whole country had sunk into such absolute desolation that there was not a single place except Purī and Cuttack which could furnish even one battalion with provisions. In 1792-93 the miserable peasants again experienced the horrors of famine; scarcity followed in 1803; and when the country passed into the possession of the British its condition was wretched. A large portion of the land had been thrown into waste; many of the people had fled to the jungle; and the population was insufficient to till the fields. Under British administration an era of prosperity has ensued; with an improvement in their material resources, the people have displayed far more staying power in bad years; cultivation has extended, and though there have been frequent droughts, they have only once culminated in famine.

Famine of 1865-66.

This was the famine of 1865-66. No such calamity had occurred for nearly a century; it had to be dealt with by a body of officials necessarily ignorant of the signs of its approach, unprepared to expect it, and inexperienced in the administration of relief measures; nor were the native inhabitants more aware of what was coming on them than the British officers. The rainfall of 1865 was scanty and ceased entirely after the middle of September so that the outturn of the great crop of winter rice, on which the country mainly depends, was reckoned at less than a third of the average crop. Food-stocks were low both because the quantity exported in 1865 was unusually large, and because the people, unaccustomed to precarious seasons, had not retained sufficient stores at home. When the harvest failed, the gravity of the occasion was not perceived and no special inquiries were instituted, while prices long remained so moderate that they offered no temptation to importers and forced no reduction in consumption on the inhabitants, till suddenly the Province was found to be almost bare of food. It was only in May 1866 that it was discovered that the markets were so empty that the jail prisoners and the Government establishments could not be supplied. But the southern monsoon had now begun and importation by sea or land

became nearly impossible. Orissa was at that time almost isolated from the rest of India; the only road leading to Calcutta was unmetalled and unbridged; and there was very little communication by sea. By great exertions, the Government succeeded in importing about 10,000 tons of food-grain by the end of November; and this was given away gratuitously, or sold at low rates, or distributed in wages to the starving population. But meanwhile the mortality among those whom this relief did not reach, or reached too late, had been very great; and it was estimated that nearly 1,000,000 persons had died. The mortality reached its culminating point in August, when heavy rains caused great suffering among the people, who were then at the lowest stage of exhaustion, emaciated by hunger and without sufficient shelter. Disastrous floods in Cuttack and in the south-east of Balasore followed these rains, and in all the low-lying lands the crop was lost. The harvest in the higher lands was, however, a good one; the new crop came into the market in September; and though the rate of mortality continued high for some time owing to cholera, the famine came to a close in November.

History of the famine in Balasore.

With this brief sketch of the general history of this disastrous famine, we may turn to a more detailed account of the progress of events in Balasore. The rice crop of Balasore in 1864 had been an unusually good one, and the exports enormous. In 1865 no alarm seems to have been felt regarding the safety of the cold weather or *sărad* rice crop till September, or even later, prices still ruling at 23 to 20 seers per rupee. At the end of October, however, complaints were received from the zamīndārs that the crops were ruined; that the ryots, being unable to obtain advances, could not pay their rents; and that the cultivators had blindly disposed of all their produce and kept no stock in hand. In November prices had gone up to 16 and 11 seers per rupee, and the distress became acute. Accordingly, a Relief Committee was appointed, but it was considered that no immediate measures of relief were required. Early in 1866 there was an extraordinary outbreak of crime; and the houses of those who were supposed to possess grain were attacked and plundered by their destitute neighbours. At the end of January, starvation appeared, the poor began to flock into the town, and the gratuitous distribution of food was commenced. In March and April the number of starving people in the town rapidly increased; and on the 2nd May the Commissioner reported that, owing to the extraordinary rise in prices, it had been for some months beyond the means of the poorer classes to procure sufficient rice to support life, and that they were eking out a miserable subsistence by eating

roots, herbs and leaves. The general population had fallen into a state of dejection, and had lost all energy. They were swarming into the villages, and there dying of cholera, dysentery or hunger. Even in Balasore town, the organized relief was utterly insufficient to meet the need of food. A distribution which the Commissioner witnessed in April was a scene of utter confusion; the starving crowds were beyond management; they seized the food as soon as they saw it, and even fell on the Commissioner, snatching from his hands and pockets the pice which he intended to distribute. So uncontrollable was the attack of the paupers on the pots of cooked food, that for a time the Committee was obliged to give out uncooked rice; but it was soon found that the rice so given was devoured raw, and the Committee therefore reverted to cooked food.

Government began to import grain in June, steamers being sent round by sea with large cargoes of rice, and by the end of July 12,000 maunds had been imported. Private importations by land from Midnapore into the north of the district were also considerable, but still hardly sufficient to meet the demand from day to day. Traders, too, began to import grain from Calcutta on pack-bullocks; but in the middle of June this traffic was stopped by the rains, which made the unmetalled roads impassable. Rice shops were opened early in July in the town and at several places in the interior for the sale of rice to all-comers at a low rate; but, unfortunately, the relief operations received a check, just at the time when they were in full operation, by a failure in the supply of rice. In August the stock became exhausted at a time when a vessel was lying at the mouth of the Balasore river with a cargo of 10,000 maunds of rice. Her draught of water, however, was so great, that she could not come within 8 miles of the shore; and the country boats and sloops could not get out to her without the assistance of a steamer. Unhappily, no steamer was available at the time; and ultimately bad weather set in, which drove the ship across the Bay of Bengal to Akyab. Thus the supply of rice was unexpectedly snatched away almost from the mouths of the people, just when it was most needed. The result was intense distress in the first half of August, and in the first 12 days of that month the police removed over 1,000 corpses from the town.

The distress in the Bhadrakh subdivision was equally great. In March and April grain robberies and incendiarism had appeared to an alarming extent; and in May it was reported that rice was selling at the rate of 3½ seers for the rupee, and that numbers of people were starving. Relief operations were started at Bhadrakh,

but it was not till the 10th August that rice arrived in sufficient quantities to enable the Committee to open centres in the interior, and to afford relief on any considerable scale. Heavy inundations added to the suffering. In the eastern part of the subdivision, the early rice crop was injured, houses were swept away, and the people perished of cold, exposure, and hunger, being cut off by the floods from access to supplies. The grain-dealers had closed their shops, declaring that they had no rice left. On the 25th August, rice was sold at Dhāmnagar, 10 miles south of Bhadrakh, at the rate of one rupee the seer, the highest price recorded at any time or place during the famine. Supplies were kept up at the relief centres, but with great difficulty, from Balasore; and in September a second inundation fearfully enhanced the distress of the people. On the 25th October it was reported that the distress was still very great,—that the country everywhere bore traces of famine, inundation and pestilence. Unsown lands, ruined houses and living skeletons met the eye everywhere. In the preceding week the daily total of persons receiving gratuitous relief at the eleven centres which had been established in the subdivision amounted to 203,000, giving a daily average of 29,000.

The coming in of the new rice crop gradually relieved the distress. On November 5th the Government sales were stopped; and the Collector reported that public health was improving and trade reviving. Soon after, the majority of the paupers dispersed and returned to their homes. The Relief Committee finally stopped operations on the 24th November. During the year the price of rice rose as high as 2½ seers to the rupee, and in the town of Balasore alone 10,000 paupers succumbed to starvation and disease. The total mortality was estimated at 217,608, altogether 31,424 deaths being ascribed to diseases resulting from starvation; 29,558 persons emigrated; and the total loss was, therefore, 247,167, or one-third of the population.

The maximum number of centres open for gratuitous relief, including 11 in the Bhadrakh subdivision, was 22, the distance between them ranging from 5 to 22 miles, but averaging 12 miles. Shops, for the sale of rice to those who had money, were opened at 7 places besides Balasore town, in which 3 shops were established. The daily average number of persons relieved from June to November was 26,497, *viz.*, 4,552 employed on light labour and 21,945 in receipt of gratuitous relief. The greatest difficulty was experienced in getting the people to work at all; and the Collector reported that the Oriyās would rather die than go even a few miles from their homes to procure work.

The Famine Commissioners in their Report give the following general review of the operations :—"After the famine had unmistakably declared itself, the local endeavours to meet it were crippled by want of funds. Until May, the possibility of obtaining assistance on such a scale as that on which it was subsequently obtained, was never contemplated; nor, indeed, was any adequate idea entertained of the dimensions which the requirements for aid would assume. "There were starving people in April," it has been said, "but we did not realize that they would come pouring in in such thousands." Nor indeed, could these numbers have been anticipated by the residents of Balasore, for many of the paupers came from other districts and from the estates of the Tributary Rājās. After the importation of rice was undertaken, it was more than once necessary to restrict the district operations, in consequence of the scantiness and uncertainty of the supply, and many of those who received the imported rice in June and July were probably too far gone to be saved. The number of paupers ascertained to have died in the town of Balasore alone between June and October was 8,900, of whom 6,132 died in the streets and 2,768 in the hospital. The mortality culminated in August, and was to some extent affected by the rains and inundations of that month.

"The mortality in and about Balasore town, and the famine sights to be seen there were more terrible than at any other place in Bengal or Orissa. The mass of paupers assembled was larger than it was elsewhere. The town lay in the way of many who left their homes in hopes of reaching Calcutta. Of these, many, exhausted and disabled by hunger and disease from going further, remained to swell the number who were fed by the Relief Committee. Subjects of the neighbouring Tributary Rājās also flocked in to share in the relief. These, as well as the travellers generally, arrived in such a condition that they were beyond recovery. In the early months, cholera, and subsequently, other bowel-complaints caused by bad and insufficient food, carried off hundreds; the least change of weather to cold or damp was immediately fatal. Many who were caught by bad weather at a distance from the places of distribution had not strength to crawl back to get their meal, and so died, where they lay, in out-houses or by the way-side. Even in fine weather, many were found dead in the morning where they had lain down to sleep at night; others, when they went to drink, fell into the water through sheer debility and were drowned."

Scarcity of 1897.

Since this great calamity, Balasore has not been exposed to the strain of famine, but in 1897 there was some scarcity. The rainfall in 1896 was 9 inches above the normal, amounting to 69

inches, but its distribution was untimely. There was heavy rain in June, July and August, but there was an almost complete cessation of the rainfall from the latter part of September to the close of January. The consequence of these abnormal conditions was that there were successive and heavy floods followed by drought. The floods almost totally destroyed the *bhadoi* and winter rice crops in nearly all the tracts not protected by embankments. These were also breached in many places, and extensive tracts lay under deep water for a considerable period. The peasants endeavoured, on the subsidence of the floods, to recoup their losses by fresh planting, but the cessation of the rains from the latter part of September gave the finishing stroke in many places to what had escaped or been replanted after the flood. Want of rain in September and October was equally injurious to the *rabi* crops. The people did their best to meet the loss by raising *dālua* and other special crops, and the situation was also relieved by the railway works then in progress, which gave employment to a large number of the labouring classes. These works were supplemented by those started for the repair of the damages caused by the floods; and fortunately there had been good harvests in the two preceding years. Notwithstanding, therefore, the poor outturn of the crops, no rice had to be imported, but on the contrary the export of rice from Balasore increased. The result of this exportation at a time when prices were very high outside Orissa meant that the cultivators received good prices for such surplus stock as they possessed, though much of the profit doubtless went to middlemen. The classes that suffered most were the landless labourers and those depending on fixed incomes, including the *bhadralok*, whose circumstances were straitened by high prices. The wants of the former were, however, met to a large extent by the exceptional activity in railway and public works, and, where necessary, by district works that answered the purpose of relief works. The case of the very low castes and of those who ordinarily depend on private charity was the worst, and the former, being very poor, felt the pinch most acutely. For the ordinary recipients of private charity, where private charity was exhausted, gratuitous relief was afforded, so that the apprehended general scarcity was quietly tided over, and the district did not experience anything that can be called famine.

TRACTS LIABLE TO F AMIE.

No part of the district, except the irrigated area in the south-west, is secure from drought in seasons of abnormally short rainfall. Drought most commonly occurs, though not in an aggravated form, on the upland stretching from Balikhand to the town of Balasore, at which point it widens across the district.

Even here, however, there is a considerable quantity of low-lying land, so that the effects of drought are not very severe. According to official returns, the area regarded as liable to famine is 1,123 square miles, with a population of 563,500 souls; and it is estimated that the maximum number of persons likely to require relief in the event of serious famine is 197,000, of whom 65,500 would have to be provided for by relief works, while 131,500 would require gratuitous relief.

CHAPTER VII.

CANALS AND EMBANKMENTS.

CANALS. The Churāman Canal. THE first canal constructed in the district was that known as the Churāman Canal, a cut connecting the Matāi and Gamai rivers. This canal, which is also called the Ricketts Canal after Mr. Ricketts, one of the first Collectors of Balasore, was designed for the transport of salt from the salt lands in the south to the port of Churāman, whence it was shipped to Calcutta. It was commenced in 1825 and was completed, so far as it went, about the year 1826, when the project appears to have been abandoned. The route of this canal lay through the low-lying lands of *pargana* Ankurā, which it served in some measure to drain; but it soon fell into disrepair; a dam was built across it at Mandāri, 2 miles south of Churāman, and it has now silted up.

The Coast Canal. The Coast Canal, which connects the Hooghly at Geonkhāli with the river Matāi at Chārbātiā, has a length of 71 miles in this district (excluding river crossings), and runs along the sea-face at a distance varying between 2 and 10 miles from the coast. It contains 8 locks, and is divided into 4 ranges, the first of which is fed from the Subarnarekhā river, the second from the Sārathā, the third from the second range by means of a syphon pipe in the bed of the Pānchpāra, and the fourth or lowest from the Kānsbāns and Jamkā inlets. The last three ranges have inlets and escapes to allow of the admission and exit of flood water, which thus passes across the canal to the sea. The canal was partially opened in 1885 and entirely in 1887, the work having been commenced in 1880. Its construction was undertaken because it was considered that it would be valuable as a protection against famine and remunerative as a trade route. It was anticipated that nearly all the import and export trade of Orissa would pass along it, and that it would yield a revenue of over $2\frac{1}{2}$ lakhs; but these expectations have not been fulfilled, and the canal has been a dead loss to Government. It is no longer valuable as a famine protective work, and being fed by tidal waters, it is of no use for purposes of irrigation and does not benefit agriculture. It has been a failure as a commercial enterprise, and so far from defraying the interest on capital expenditure, it has not even

paid for its working expenses. It is serviceable only for navigation, but with the opening of the railway passengers ceased to use this route, and the steamer service between Balasore and Chāndbāli which used to ply along it has been discontinued. The country-boat traffic is, however, steadily returning and the revenue derived from it has greatly improved: indeed, the number of boats plying along it in 1905 is probably the highest on record. The canal is also very valuable as a protective work for keeping out the sea; and even, when it was still under construction, it rendered great service to the district south of the Burābalang by receiving and breaking the main force of the storm-waves which accompanied the cyclones of 1885 and 1887, and thus protecting the country inside the canal line.

This canal is a continuation of the older Hijilī Tidal Canal in the Midnapore district, which leaves the Hooghly river at Geonkhāli 45 miles from Calcutta. There are 3 ranges between Geonkhāli and the place where the canal enters Balasore, in its north-eastern corner. Range III continues to Bhograi on the Subarnarekhā 65 miles from Geonkhāli; and Range IVA leaves that river at Jāmkundā, 4 miles lower down, and ends at Pānchpāra lock on the river of the same name at mile 86. On the opposite bank of the Pānchpāra is Sulpatta lock, the entrance to Range IVB, which runs as far as Nalkul (mile 93) on the Burābalang, 7 miles from Balasore. Range V begins at Chārgāchiā, about 2 miles below Nalkul, and continues to the Matāi river at Chārbātiā (131¾ miles).

The High Level Canal.

The only other canal in the district is the High Level Canal. This canal was designed to provide a navigable trade route between Cuttack and Calcutta, and also to irrigate the country through which it passes. It starts from near Cuttack, where there is a weir across the Birūpā, and runs thence along the foot of the hills north-eastwards, through the Cuttack and Balasore districts. It is the most picturesque of all the canals of Orissa, skirting the base of the wooded hills along the western boundary. The traveller looks eastward over almost by boundless rice plains, the level surface of which is broken only a few hills that here and there rise steeply from the surrounding country; while to the west is a vista of range upon range of rugged hill and valley in endless confusion.

The original scheme was to carry the canal across the district of Midnapore to meet the Hooghly river at Ulubāria, below Calcutta, a total distance from the starting point of 230 miles, so as to connect Cuttack with Calcutta by one long canal; but this great scheme was abandoned, and only three ranges have

been completed, of which the first and second lie within the Cuttack district and the third within this district. Range III, as it is called, was completed in 1891; it is a navigable channel, 19 miles long, and ends at the town of Bhadrakh on the Sālandī river. It derives its supply of water from the Baitaranī at Akshuāpadā, where there is a weir 1,029 feet long across the river. It is the only irrigation system in the district, and with its 7 distributaries, which are 67¾ miles long, commands an area of 59,821 acres, of which 44,208 acres are actually irrigable.

Canal irrigation.

The demand for canal irrigation in Orissa is in no way as great as in less favoured tracts, such as South Bihār. In the latter the rainfall is generally light and often irregular, and rice can only be grown to a limited extent without artificial irrigation. In Orissa, on the other hand, the rainfall is so steady that it is only in exceptional years that, for a large part of the country commanded, there is any urgent need of canal water; and there are only a few places where in most years artificial irrigation is absolutely essential for rice cultivation. The normal rainfall of 60 inches per annum being ample for their ordinary needs, the ryots do not consider canal irrigation so valuable as to make it worth their while to pay anything but a small water-rate or to have all their fields irrigated; and the demand for it is ordinarily not very great. In the eyes of the cultivator the chief value of canal water lies not in any improvement it may render possible in the outturn of an ordinary year, but in the protection it affords in years of drought. In the case of the rice crop it is usually resorted to for the added security which it affords, as it is a method of insurance which minimizes the risk of loss; and it is also used to a small extent for the cultivation of special crops, such as sugarcane. During the last 10 years, however, there has been a great expansion of the area under irrigation from the High Level Canal, Range III. In 1895-96 the irrigated area was only 10,105 acres; it had increased to 29,248 acres in 1898-99; in the 5 years ending in 1904-05 the average area irrigated was 37,700 acres; and in 1905-06 water was supplied to 42,784 acres, of which 42,000 acres were under rice.

The present state of affairs is very different from that prevailing before the introduction of the canal system. No provision existed against the calamities caused by want of rain, the tanks and other receptacles of local drainage were not used for irrigation, and the rivers were allowed to carry their waters unused to the sea. The people generally were reluctant to resort to artificial irrigation, and as an instance of this feeling, mention may be made of the course of events in 1869 in *pargana* Randhiya-orgara,

which suffered severely from want of rain in that year. The river Sālandī runs through the centre of this tract, and when the drought made itself felt and the people were praying for help, the Collector asked them why they did not use the river water as a means of irrigation. They only replied that it was not the custom; that the proprietors of land on the river's banks would object to channels being cut through their lands for the purpose of carrying water to fields further inland; that it would be very hard work; that it would not pay; and that river water was not so fertilizing as that which came "from heaven". At all events, the river water was not used and the crops perished in consequence.

Canal administration.

This irrigation system is under the control of the Superintending Engineer, Orissa Circle, who is assisted in this district by the Executive Engineer in charge of the Akshuāpadā-Jājpur Division. The latter is responsible for the maintenance of the canals and the conduct of irrigation operations; and a separate establishment is entertained for the collection of the revenue. For this purpose, there is a revenue division in charge of a Special Deputy Collector, who sees to the assessment and collection of water-rates under the orders of the Superintending Engineer. The irrigated area is divided into blocks, the lease of all the lands in each block being arranged so as to lapse in the same year. Water is supplied to the cultivators on application on a prescribed form, the year being divided into three seasons, viz., the hot weather, from March to June, *kharīf*, from the 16th June to the end of October, and *rabi*, from November to the end of March. Dates are fixed for each season, and a lease or permit granted for the season is only in force for that particular period. Besides these season leases, there are long-term leases, or leases for periods up to ten years, granted at a somewhat reduced rate, which secure a supply of water from the 16th June to the 31st March in each year. These long-term leases are only granted for compact blocks defined by well-marked boundaries of such a nature that the leased lands can be clearly distinguished from the adjoining unleased lands, and also so situated that unleased lands will not be ordinarily irrigated by water supplied for the land included in the block. These boundaries are mentioned in the application for the lease, on receipt of which a special report is submitted to the Executive Engineer.

If the lease is approved, that officer issues orders for the block to be measured, and a detailed measurement of each cultivator's holding is then made. The lease is finally approved by the Executive Engineer who issues the permit,

but before this can be done, every cultivator who has fields within the block must sign his name against the area which has been measured, and which will be assessed in his name. Fields which cannot be ordinarily irrigated, or for which canal water is not ordinarily required, can be excluded from the block at the discretion of the Executive Engineer, such fields being duly noted in the *khasrá* or measurement paper. In these long-term leases water-rates are charged for the area measured and accepted by the cultivators, whether water is required or not. In *rabi* and hot weather leases, water is supplied on application, and water-rates are levied on the actual areas irrigated, and not necessarily on those specified in the application. In order to assist the Canal Department as far as possible in the assessment and collection of water-rates, influential men of the village, called "representatives" are appointed on the approval of the majority of the cultivators concerned. Their duty is to assist in measurements, in procuring and attesting signatures to applications for leases, and in collecting the rates. In return for this work, they are entitled to free irrigation of the lands in their own occupation within the leased area, up to a limit of 3 per cent. of the area assessed.

Water-rates.

The present practice is to give long-term block leases, which often extend to 10 years, but to discriminate between the various classes of land forming a block. Thus lands lying so low that they never require irrigation, although water may often flow into them, are excluded from assessment; while a special rate of only 8 annas per acre is charged on those lands which derive benefit from irrigation only in exceptionally dry years. The rate charged for other land, or the ruling rate, was formerly Re. 1-8 per acre, but it was raised to Re. 1-12 in 1902-03; higher rates are charged for single season leases, or for water taken between 1st April and 16th June.

EMBANKMENTS.

The necessity of protective works in Balasore will be apparent from the account given in the preceding chapter of the disastrous inundations which have from time to time swept over the district, and from the fact that from 1832 to 1867 Rs. 6,25,840 of Government revenue were remitted in consequence of floods.

Early history of the embankments.

Embankments intended to secure protection against such inundations appear to have existed in very early times, but whatever ancient works there were must have been isolated; and they were probably rather of the nature of mounds on which villages were built, while the country generally was open to inundation. Under the Maráthá Government the zamíndárs were bound to maintain embankments, and for this purpose were allowed certain deductions from the revenue they paid. This system, however, proved very unsatisfactory. The old embankments were constructed

at those places where the banks were specially low, in order to guard against the spill of the rivers during an ordinary flood. By confining the spread of the water, they raised its level and so necessitated longer and stronger embankments to resist the floods; these new embankments in their turn again raised the level of the water, and thus led to the addition of more embankments. In 1831 they came under the charge of the Public Works Department; and it is evident that there was then no regular system of protective works, nor does it appear that any attempt was made to systematize them, or that anything was done beyond maintaining and repairing the embankments already in existence.

The greater number, however, were not efficient; many of them had been of insufficient height and strength to withstand heavy floods, and had fallen into disrepair and become useless, while others, though they afforded some protection in ordinary floods, and more or less protected villages from strong currents, were of little use in time of extraordinary floods and were generally liable to be breached. From 1866 onwards the embankments were much strengthened, but the question of the degree of efficiency in which they should be maintained was not raised till 1881. They had not been aligned on any scientific system, and it was physically impossible, without abandoning many of them and remodelling the remainder on an extensive scale, to render them capable of affording protection against high floods. The expenditure involved would have been prohibitive; and it was accordingly decided at the end of 1881 that the embankments should be kept up in the condition in which they then existed.

Since that year the embankments have been maintained in much the same condition of efficiency; in repairing them, care has been taken not to raise their height; and unauthorized additions have been prevented, as it was found that in previous years they had frequently been raised or lengthened, with the result that particular localities were protected, but damage was caused elsewhere. A further examination of the embankments was made in 1896 and 1897 in order that, when any obligations which might be held to rest on Government under the existing settlement might expire, only those embankments might be maintained which were productive of good or at least not harmful. Many embankments, it was found, were maintained simply because they were in charge of Government in 1881, and not because they were supposed to be of any real use to the country; in some cases there is no doubt that they were actually harmful, though they might afford some protection to particular places; and other embankments, though still nominally borne on the list, had already been practically

abandoned, as the country they were supposed to protect was covered by the works constructed in connection with the canals; As a result of this examination, many embankments were abandoned; and Government now maintains, under Act XXXII of 1855, 80 miles of embankments, 38 miles in the Akshuāpadā-Jājpur Division and 42 miles in the Balasore Division, where they afford effectual protection to 150 square miles of country. Besides these, there are a large number of embankments maintained by the zamīndārs, intersecting the district in every direction. Most of these are small and made without reference to any general scheme of protection from floods; and if they do good to the village in which they are situated, they often do harm to villages on the opposite bank, by throwing the set of the current on to the other side.

Nūnā embankment. The principal embankments are the great Nūnā or salt embankment, the Bhogrāi or Subarnarekhā left embankment, the Sulsāpāt embankments on the lower reaches of the Subarnarekhā, and the Baitaranī embankment. The Nūnā embankment extends for 13½ miles along the sea-face between the Matāi and Burābalang rivers, starting from the south side of the Coast Canal and ending in a sand hill at Bālimundā. It is intended to keep out the sea, and protects an area of about 37 square miles from the storm-waves. Although valuable as a defence against the ocean, this embankment used to intercept the natural drainage from the land; and when the Gamai and the Kānsbāns came down in flood, it had to be pierced in order to let the water through. The sluicing of the Kānsbāns and Jamkā has, however, greatly improved the drainage of this part of the district, and it is no longer necessary to cut the embankment after every slight inundation. Although serviceable by restraining high tides in the Bay, it is quite incapable of resisting cyclonic storm-waves of any great height.

Bhogrāi embankment. The Bhogrāi embankment was constructed in 1870 to afford protection from the flood-spill of the Subarnarekhā and replaced an embankment built by the British Government, which again had replaced an old embankment at the mouth of the Subarnarekhā constructed during the rule of the Marāthās. Both, however, had been constructed too close to the river to allow the water to escape freely in time of flood, and the Bhogrāi embankment was aligned further back, so as to give plenty of waterway for the floods, and thus prevent the overflowing, in the higher parts, of the rivers which formerly resulted from the narrowness of their outlets. The embankment starts about 5 miles from Bhogrāi as a continuation of the Coast Canal flood embankment, and goes

first north of and more or less parallel to the canal as far Bhogrāi. It then continues on the opposite side of the can along the left of the Subarnarekhā as far as Rankutā, where terminates on a high sand hill. With the Joki embankment, i continuation in the Midnapore district, it is a very importa protective work, being 15 miles long and affording effectu protection to an area of about 60 square miles.

The Sulsāpāt embankments.

The Sulsāpāt embankments are intended to protect th Sulsāpāt, a tract of country, 20 square miles in area, lying o both sides of the canal near Jāmkundā lock. The Coast Can having cut through the Sulsāpāt, its embankments on either sid for the first 9 miles south of the Subarnarekhā now form floo embankments, which keep out of the *pāt* the water of that riv entering the canal at the escape crossings beyond the ninth mil The other detached embankments are described later in thi chapter in the account of the Subarnarekhā embankments.

The Baitaranī embankment.

On the north of the Baitaranī, from Mahurigāon the foot of the hills to the weir at Akshuāpadā, there a continuous embankment, over 18½ miles long, giving complet protection to the country east of it, the railway line, and th High Level Canal, Range III. This embankment is stron throughout its length, but during extraordinary floods the lengt between the weir and the railway requires to be watched. It ha 3 sluices, through one of which flood water is admitted fo purposes of irrigation; and there are 2 spill channels, one 4 an the other 6 miles above the weir; flood water from the form combines with that of the latter, and running along the toe the embankment, falls again into the river.

Other embankments.

The other embankments are of minor interest, being works little more than local importance which have been constructed i order to protect small areas from river or sea inundation. Th following is a brief account of these works.

Sālandī, Rebo and Kapāli rivers.

Proceeding from south to north, the first are three sma embankments on the right bank of the Sālandī river ne Bhadrakh. This river rises at no great distance from Bhadrak and being a hill stream, its flood is sudden and rises several fe in a few hours. The embankments partially protect the civ station from ordinary floods, but flood water finding its wa through the unembanked part enters the town through a caus way in the Trunk Road. A project is being considered for exten ing the right embankment round the civil station; and the questio of making an embankment on the left bank below the Trun Road crossing has also been discussed, but it seems likely that, b restricting the river channel, the right bank would be endanger

On the right bank, some two miles above Bhadrakh, there is a continuous embankment, $7\frac{3}{4}$ miles long, which protects a small area of country, the High Level Canal, Range III, 14th to 16th mile, and the Bhadrakh branch canal. This embankment is exceptionally strong, and has several sluices, all intended for draining the country. There are no embankments along the Rebo, a small stream rising in the Keonjhar hills, which falls into the Kapāli river ; it is a mere drainage channel and hardly spills over its banks. In the upper reaches of the Kapāli, there are several small embankments, which appear to have been made to admit of impounding water for irrigation. They are of little use and of no importance, and are no longer maintained by Government but left to the zamīndārs. Down to the canal aqueduct the stream is, like the Rebo, practically a drainage channel, hardly spilling over its banks, but below the aqueduct the country is subjected to slight flood, and there are two small embankments giving protection to village sites.

Matāi, Kānsbāns and Jamkā rivers.

The Matāi, which is flooded by local drainage and by water flowing in through the Ricketts canal, has no embankments, but further north a portion of the Kānsbans has been canalized and embanked on both sides down to the sea, where a sluice of 11 vents has been constructed for feeding or draining the canal as may be required. Just beyond the spot where the Gamai crosses the canal, the Nūnā embankment, mentioned above, begins; and further north beyond the canal to the sea, embankments have been made on both sides of the river Jamkā, and a sluice of 11 vents, similar to that on the Kānsbāns, has been constructed for feeding or draining the canal.

Burābalang, Pānchpāra and Sārathā rivers.

Along the Burābalang there is an embankment 1 mile long on the right bank, from Chārgāchiā lock to the road from Balasore to Chandīpur, which affords partial protection to a small area. There are three embankments on the right bank of the Pānchpāra, viz., the Sulpatta, Sildā and Channuali embankments, which protect the cultivated fields from the ingress of salt water at high spring tides. North of this the old channel of the river Sārathā beyond the canal is embanked on both sides to the sea, where there is a sluice of 10 vents for feeding or draining the canal.

The Subarnarekhā.

In the north there are several embankments intended to protect the country from the floods of the Subarnarekhā and to keep out water from the Sulsāpāt. On the right bank of that river, nearly 16 miles above Jāmkundā, is the Darbori embankment about $1\frac{1}{2}$ miles in length, which traverses a low piece of land and protects an area of $13\frac{1}{2}$ square miles from floods.

There are also 4 small detached embankments, mentioned below, giving partial protection only; in ordinary floods they protect an area of 34 square miles, but in high floods the water enters at many places where the ground is low. From Jāmkundā to Pānchrukhi the Jāmkundā embankment runs along the right bank of Subarnarekhā for a little over 2 miles, and protects the Sulsāpāt from flood. The Baras embankment, which commences in Jāmkundā village and ends at Baras, half a mile distant, also protects the Sulsāpāt; and so does the Panchpāli embankment which connects with the canal in the 78th mile. It is $3\frac{1}{4}$ miles long, and has three sluices for drainage only. There is, besides these, a short embankment on the right bank about 6 miles below Jāmkundā, between villages Nagari and Ambachua, which protects about $5\frac{1}{2}$ square miles.

EFFECT OF EMBANKMENTS.

Northern *parganas*.

In conclusion, the following remarks may be quoted from Mr. Kingsford's Settlement Report on the effect of the embankments on various parts of the district. As regards the country to the north, he considers that the construction of the Joki embankment in Contai, the strengtheningo f the Bhogrāi embankment, and the construction of the Coast Canal have tended to increase the liability to flood on the west side of the Coast Canal.

"In Koardāchaur nearly one quarter of the area is liable to almost annual flood. No doubt these lands were always covered with a considerable depth of water, and the Coast Canal is not therefore the cause of the increase in the proportionate liability to flood, except in so far as it has raised the height of flood level. As the embankment is now effective, it is probable that some increase has been caused in the height and duration of floods of unusual magnitude. I do not, however, think that the circumstances of this *pargana* have materially deteriorated, except for the fact of cultivation having extended over lands specially liable to flood."

Turning to the *parganas* on the south bank of the Subarnarekhā and upon the west of the Coast Canal, he says:—"In years of high flood the rivers Subarnarekhā and Hāskurā discharge over the *parganas* to the south-east, and the water runs across the Bastā-Bāliāpāl road into Koardāchaur and Sātmalang. It is then banked up by the Coast Canal, and passing southwards, finds vent through the open escapes on the north of the Pānchpāra river. That the water is banked up needs no demonstration to any one acquainted with this part of the canal. Did the embankment not exist, the water would escape towards the sea. Under existing circumstances, it stagnates until itr eaches the level of the escapes to the south, where there is no embankment, the canal

running through higher ground. It is not until it reaches this higher level that the flood can obtain egress. Along the low lands upon the Coast Canal, there is, therefore, occasionally some loss of crops, but the distance is so far from the Subarnarekhā that no violent rush of water occurs. Moreover, the embankment protects the country to the west from the penetration of tidal waters, and the benefit conferred in this respect probably equals the disadvantage. Great damage occurs in *parganas* Kismat Katisāhi, Katisāhi and Sāhabandar through flood, erosion and occasionally by sand deposit. In Sāhabandar, particularly in the area enclosed by the old and new channels of the river, the surface of the soil is in a state of continual change owing to the action of the water. The course of the river is erratic, and its action deposits in some places sand and in others silt, so that the cultivation varies from year to year. In Daradachaur and Nangaleswar less damage is caused, and throughout these and the other *parganas*, excepting those directly upon the bank, silt is deposited in large quantities, and when the flood occurs early in the year as in 1898 its results are entirely beneficial. It remains to note *pargana* Bhograi, which 60 years ago was exposed both to the Subarnarekhā floods and to irruption of the sea, was partially protected by sand ridges and an old Marāthā embankment, but the protection now afforded is effectual, except upon the lands situated between the embankment and the river. This is indeed the only protected tract in the district with the exception of Soso and Manjuri in the south-west."

Southern *parganas.*

As regards the south of the district, Mr. Kingsford remarks—"The construction of the Baitaranī left embankment above Akshuāpadā, while protecting the *pargana* of Soso, naturally raised the river levels below Akshuāpadā; subsequently, the Baitaranī right embankment, reaching 17 miles below Akshuāpadā, was erected in order to protect the irrigation works of Jājpur, and this was completed between 1891-92, thus closing the rivers Benga, Kia and Pātpur, which previously carried off much of the Baitaranī water to the south. In the year following it was found necessary not only to raise the right embankment, but also to cut the old agricultural embankments of Nadiāgāon and Phalpur, in order to allow free egress of the water into Bayāng. The result of these measures has been to throw open to disastrous flood several villages in Bayāng previously protected, and to raise the flood level throughout the tract.

"It must be obvious, to any one who examines the facts, that the embankment has caused an immense increase in the volume of water thrown into Dhāmnagar and Bayāng. The flood traverses

nearly the whole of the latter *pargana* and Kāimā, and part it passes towards the north-east across a portion of Senāut an through Bherā until it meets the Matāi. Here the water is bank ed up, and the drainage from the west of the Coast Canal, findin no outlet, stagnates in the low-lying lands of Ankurā. The effec is most severe in Bayāng. Nearly 1,000 acres of cropped land previously protected have been exposed to flood by the cutting o the agricultural embankments referred to, while the depth of flood over another 27,000 acres of cropped area has been considerabl increased. It has been said that the flood-water of Bayāng causes the Matāi to bank up, and results, therefore, in the stagnation o the whole drainage of Ankurā. There is, I think, no doubt tha the construction of the Coast Canal has contributed to this resul by barring egress to the east, except by escapes, the height o which is too great to permit the water to flow off until it ha reached a level destructive to the crops.* There has undoubtedl been interference with the drainage of the Gamai,† which, instea of flowing off directly to the sea, is now forced down the wes bank of the canal into the Matai. The Ankurā-pāt or low-land along the canal must always have been subject to flood; but I gather from the old records that the loss was not excessive, where- as at the present day the crop over a great portion of this *pargan* is precarious. On the other hand, the condition of two of south western *parganas*, Soso and Manjuri, has much improved owin to the construction of the Baitaranī left embankment, whic effectually protects the area from flood."

* Since Mr. Kingsford wrote his report, the crests of many of the escapes Range V of the Orissa Coast Canal have been lowered, and the stagnant draina complained of has thereby been considerably improved.

† Regarding this statement, Mr. A. S. Thomson, Superintending Engine Orissa Circle, writes as follows:—"The benefits conferred by the canal banks, preventing the tidal waters of the sea penetrating the basin and banks of Gamai river, probably equal the disadvantages caused by the Coast Canal obstru ing its free drainage to the sea. In course of time, the land must rise from annual deposits of silt, and the low area now complained of will eventually appear."

CHAPTER VIII.

RENTS, WAGES AND PRICES.

THE rents fixed at the last settlement were not based on the classes of soil under cultivation, as it was found that the villagers could not point out, with any degree of accuracy or certainty, definite tracts of lands bearing a uniform rent. Eventually, it was decided to assess rents on the basis of the existing rates; the method adopted being the proposal of a fair rent, *i.e.*, either the existing rent or an enhanced rent, for the acceptance of the tenant, the immediate settlement of that rent if accepted by him, and in all cases in which the tenant declined it, the formal settlement of a fair rent under the provisions of the Bengal Tenancy Act. The method was simple and involved as little disturbance of the *status quo* as was possible; it avoided the risk of inequalities of assessment due to the idiosyncracies of individual officers; and it was open to any person dissatisfied with the rent proposed to apply for the settlement of a different rent, and to adduce formal evidence in support of his contentions. Under this system, fair rents were settled for the whole body of tenants in the temporarily-settled estates; altogether 370,290 holdings with an area of 692,200 acres were thus dealt with, the average rent throughout the district being Re. 1-10-7 per acre. SETTLEMENT OF RENTS.

At the settlement of 1837, Balasore was assessed lightly, the population being scanty and the land liable to flood and interspersed with jungle, while a large area had been thrown out of cultivation owing to the disastrous cyclones and storm-waves of 1832 and 1833. The rent of the *thāni* ryots, *i.e.*, the resident cultivators who had the best land and had special privileges, was fixed at Re. 1-11-8 an acre; while the incidence of the rents of the *pāhi* or non-resident ryots, who held over 44 per cent. of the assessed area and were practically tenants-at-will, was Re. 1-2-11 an acre. During the 60 years following this settlement, there was a very great development in the resources of the country; the area under cultivation increased by 40 per cent.; and it is noticeable that the incidence of the rents paid by *pāhi* ryots rose from Re. 1-2-11 to Re. 1-11-1 an acre; for these rents have

always been more or less competition rents, reflecting with much accuracy the general conditions prevailing.

Thāni ryots.

At the last settlement the rents of *thāni* holdings were enhanced wherever they were found to be lower than the *pāhi* rents; and the excess area was everywhere assessed to rent at the village rate, after making an allowance of 10 per cent. to cover any excess due to strictness of our system of measurement. In the event, the average incidence of the rent settled for *thāni* holdings was Re. 1-13-8 per acre, and for *thāni-pāhi* or mixed holdings Re. 1-11-5, the enhancement on the existing rent being 9·6 and 6·9 per cent. respectively.

Pāhi ryots.

The general development of the district had naturally been accompanied by an increase in the rents of the *pāhi* ryots, the only class for which rents were not fixed for the term of the previous settlement. The zamīndārs had consequently enhanced them considerably during the currency of that settlement; and as they were held throughout the new proceedings to be competition rents, they were not liable to any general enhancement. They were, however, enhanced on the ground of excess area or where any particular rents were found to be unreasonably low, either through collusion or fraud, or because they were specially granted as beneficial rents by the zamīndārs. The average rent finally fixed was Re. 1-13-5, the enhancement on the existing rent being 10·1 per cent.

Other tenants.

Among other classes of tenants whose rents were settled may be mentioned the *jamābandi kharidādārs*, *chāndinādārs*, *nisfi-bāziāftidārs* and *kāmil bāz āftidārs*. The *jamābandi kharidādārs* are holders of land which, in theory at least, was formerly reclaimed. At the previous settlement they were treated as subordinate proprietors, their rents being calculated at a certain percentage of the assets they received; but at this settlement they were dealt with as tenure-holders under the Bengal Tenancy Act, and their rents were settled accordingly, a percentage equal to that granted to them at the previous settlement (20 to 30 per cent. of the full rent) being fixed. The incidence of the settled rate per acre was Re. 1-2-2, the enhancement being 58 per cent. No general enhancement was made of the rent of ryots holding *chāndinā* tenancies, *i.e.*, the holders of homestead lands, the incidence of which had risen from Re. 1-15-9 to Rs. 3-7-3 within the last 60 years; but excess areas were assessed to rent at special rates, thus causing a nominal enhancement. The *nisfi-bāziāftidārs* and *kāmil bāziāftidārs*, or holders of resumed rent-free lands, had been assessed at the previous settlement at half rates and full rates respectively. Both these classes were dealt with as ryots

whose special privileges had expired at the last settlement, but in consideration of the very low rents at which they were holding, and to prevent the hardship which would have been caused by too sudden an enhancement, a strict limit was imposed on the enhancement; and they were eventually assessed to rents much below those paid by *thāni* and *pāhi* ryots. The incidence of the settled rent per acre in the case of *nisfi-bāziāftidārs* was annas 13-11 and of *kāmil bāziāftidārs* annas 14-10, the enhancement being 197 and 57 per cent. respectively. The increase of the rents of the former, which is *primâ facie* extremely large, is due to the fact that these people, who had been given holdings at what were supposed to be half rates, were found to be paying what were really pepper-corn rents. The rents now fixed are under a rupee an acre, which is less than half the market value of the land.

Rents in irrigated lands.

In the final report on the survey and settlement of Orissa, Mr. Maddox states:—"There is little, if any, evidence of general enhancement of rents on the ground of irrigation or of higher rates in irrigated than in unirrigated villages, though there is evidence that rent-rates have risen more in the protected and irrigated tracts than in the unprotected and unirrigated. There is, however, some reason to think that irrigation causes the lowest rents to rise, and in fact has a tendency to equalize rents through an irrigated area. The increase of cultivation is certainly no greater in the protected and irrigated group, and all the enquiries made have failed to elicit any evidence of a substantial extension of cultivation to lands which but for the canal water were not likely to have been reclaimed. Amidst the mass of conflicting information on the subject of the increase of rent-rates, one fact alone can be held to be abundantly proved, and that is that the cases in which a zamīndār has openly enhanced rents on the ground of the accessibility of canal water or has imposed an irrigation cess of his own are very rare." Elsewhere in India the rents of irrigated are sometimes two or three times those of unirrigated land; but in Balasore the exhaustive enquiries made during the settlement showed that rents were not higher in irrigated than in unirrigated areas.

General results.

It was only to be expected that the rents of a very large number of tenants holding at privileged rates, which had remained untouched for 60 years, would have to be enhanced at the last settlement; for it was known that cultivation had largely extended during the same period, and that there were considerable areas in the possession of both landlords and tenants that had never been assessed to rent or revenue. The general result

of the settlement of rents was that the incidence of rent was raised from Re. 1-6-10 to Re. 1-10-7 per acre, the enhancement being 16 per cent.; while the settled assets were altogether Rs. 11,51,400, as compared with Rs. 9,88,800, the assets existing before the settlement. The enhancement actually imposed on the important class of *thāni* ryots amounted to only 9·6 per cent. The rents of these cultivators had undergone no change for a period of 60 years, and though a large number disappeared in the famine years of 1865-66, it was held that this was no reason why those who held their ground should be absolved from contributing some share of the large rise in the value of their produce which had resulted from State-constructed improvements and settled government. The incidence of rent per acre is lighter than in Cuttack and Purī, though the enhancement was greater than in either of those districts. The difference was due chiefly to the larger amount of excess area assessed to rent and to the fact that the existing assessment was low owing to the disastrous floods which had thrown much land out of cultivation, to the scantier population, and to the nature of the agriculture of the district, where the cultivated area for the most part grows only one crop, viz., *sārad* rice.

PRODUCE RENTS.

Rents in kind are still paid for a certain proportion of land. The commonest form of produce rent is that known as *dhulibhāg* (literally, a sharing of the dust), which implies an equal division of the grain as well as of all bye-products. Under this system the entire cost of cultivation is borne by the tenants, and when the crop comes to maturity, it is reaped in the presence of the landlord's agent and is carried by the tenant to the threshing floor, where an equal division is made in the presence of both parties. Sometimes, however, instead of the crop being actually divided, it is appraised on the ground, and half the estimated value in cash is taken by the landlord as his share. It is estimated that in the case of ordinary rice land, the landlord's share is about 8 maunds of paddy, worth Re. 1 to Re. 1-4 per maund at harvest, so that the rent actually paid would be equivalent to Rs. 8 to Rs. 10 in cash. A less common form of produce rent is that designated *phalbhāg*, *i. e.*, a division of the fruits and grain only, the straw and other bye-products being retained by the cultivator.

Besides the *dhulibhāg* and *phalbhāg*, there are two other classes of produce rents, the *panidhān* and *sanjā*. The former is an arrangement by which a portion of a cash rent is payable in kind, *e. g.*, a tenant with a nominal rent of Rs. 4 may have to pay Rs. 3 in cash and Re. 1 in grain. The landlord fixes the rate,

so that the tenant generally has to pay something more than he would obtain for his grain in the open market. *Sanjā, i. e.*, a contract, is a term applied to the payment of a fixed quantity of agricultural produce. The latter generally amounts to about 6 maunds per acre, which would fetch Rs. 6 in a good year and Rs. 9 in a bad year. The quantity fixed has to be paid whether the season is favourable for the ryot or the reverse, and the rent thus presses most heavily on him when he is least able to afford it. Fortunately, this system is rare in Balasore.

The wages obtained for labour have increased greatly during the last half century, especially in the towns. In 1850 the wages of ordinary day-labourers were only 1 anna a day. Carpenters' wages amounted to 2 annas a day, and smiths were contented with 2½ to 3 annas a day. Away from their villages, adult male day labourers now earn a daily wage of 3½ annas, females 2 annas and boys ½ anna; and carpenters, masons and blacksmiths 6 to 8 annas according to their skill. The rise has been greater in the case of skilled than unskilled labour, owing to the increasing demand for masons, carpenters and blacksmiths created by the linking up of Orissa by rail with Bengal, the resultant communication with large centres of industry, and the growing preference for masonry structures in the towns. The increase is more noticeable in the towns than in the villages, where lower wages obtain. WAGES.

In his own native village, a skilled labourer gets from 4 to 6 annas and an adult unskilled labourer 2 annas a day; but the amount of the wages paid depends on the demand for labour, the nature and amount of the work done, and the size and position of the village, *i. e.*, whether it is in a remote and out-of-the-way tract or in the neighbourhood of a town. For making and repairing agricultural implements, carpenters and blacksmiths, who are still an essential part of the village community, are always paid in kind, the annual payment averaging about 9 seers of rice from every client; and the day labourer, when paid in kind, gets varying quantities of paddy equivalent to 2 to 2½ seers of rice. Measured by the quantity of grain given, there does not appear to have been any increase in the wages paid to agricultural labourers during the last 30 years; but owing to the enhanced price of food-grains, the money valuation of wages in kind has increased by 90 per cent. On the other hand, though the wages paid in cash have increased considerably, they have not risen in the same proportion as the prices of staple food-crops, and they are now slightly less in value than wages in kind; the latter are, therefore, preferred by the village labourers, and it is difficult to obtain a

oly in the mofussil who will work for cash wages in the sowing nd reaping seasons, when wages in kind are freely given.

As regards the supply of labour, the following extract from r. Foley's Report on Labour in Bengal (1906) may be quoted— There is considerable emigration to Calcutta, especially for ndling goods and for all sorts of engineering work. I was formed that only the low castes went to the mills, because the stes are mixed together there; whereas the higher castes, who e chiefly Brāhmans, Khandaits, Chāsas and Goālās, wish to be parated, especially in their dwellings, from the lower castes ny amount of labour, I was informed, could be obtained etween January and July, when the people would want to turn for their cultivation, since otherwise they would have to y labourers to cultivate for them. Oriyā labour is generally otained through *sardārs*, who live in Calcutta or the neighbour-ood and have agents in the district: some of them make a very rge income by the percentages of the wages they take, and bour would be cheaper and more satisfactory, if it was recruited irect through relatives, etc. Oriyās will leave home so long as ey go with some one in whom they have confidence. The chief migration is by sea, *viâ* Chāndbāli, the crops in the southern part the district being liable to be damaged by floods and drought: ong the sea coast also the land is poor on account of the deposits salt. There is also emigration by rail, especially from hadrakh and Balasore, and also by road through Midnapore. rom Soro and the north of the district a considerable number of eople go to the Sundarbans to cut the crops, leaving in ovember and returning in March. The chief centres whence bour can be obtained appear to be Balasore, Bhadrakh, Bāsu-ebpur, Soro, Dhāmnagar and Chāndbāli."

Price of rice in seers per rupee.

37-51	49·8
52-66	42·7
67-81	24·8
82-96	19·8
96-1905	17·7

The cost of the necessaries of life has increased even more than the rate of wages, and the figures in the margin will show how enormously the price of rice, the staple food of the people, has grown during the last century in Orissa. It will be seen that the greatest increase took place after 1866, and it is indeed a common sayg that the high prices which commenced during the famine ve never left the land. This is to a certain extent true, as ter that time came a period of great activity in the improvement the roads and harbours, the construction of canals, and the adual development of foreign trade; and a steady rise of prices in after this transition period. During the last quinquennium

prices do not seem to have been much affected by the opening of the railway, probably because the country had already been opened out by the canal system to a brisk export trade in rice by sea. The effect of the railway on the general trade of the country and its potential value as a means of making prices independent of local demands are, however, unquestionable. There has also been a great increase in the price of other agricultural produce, of pulses, *ghī* and tobacco; but, on the other hand, cotton yarn and oil have cheapened, while there has been but little change in the cost of sugar and of betel-nut, which every Oriyā chews. In recent years also the average price of salt has shown a gradual fall owing to the reduction of the duty and improved facilities of communication; this fall has been very marked since the further reduction made in 1905, and consumption is increasing.

In the Final Report on the Survey and Settlement of Orissa the general standard of living is described as follows:—"The Oriyā cultivator is content with very little, and that he generally gets. A full meal of rice once a day, taken with a little salt, some pulse or vegetables, and perhaps fish, suffices him, and he eats cold in the morning what is left over from his evening repast. Animal food is a luxury, but well-to-do men eat a little mutton and goat's flesh, and all classes eat game whenever they have the luck to kill any. The poorest classes take, to supplement their rice, boiled *kulthī* and *mandiā* cakes, and find a substitute for vegetables in the many herbs and grasses that grow wild, and it is very few indeed who cannot fill their bellies with food which, if not appetising, is certainly satisfying. If the harvest fails or supplies run short, the cultivator finds in the *mahājan* a banker always ready to advance money on good security, and able and willing to tide him over hard times, provided there is no abnormal general distress; and the history of the floods and drought of 1896 shows that the agricultural community can withstand very serious calamities, if the bad season is followed by a good harvest in the next year."

MATERIAL CONDITION OF THE PEOPLE.

In spite of their indebtedness and of the liability of their crops to injury from droughts and floods, the agricultural classes have more resources than any other, and they constitute the majority of the population. Not only have they better means and better credit than the labouring classes, but being in the habit of keeping grain for home consumption, those who have crops of some kind are in a better position than the non-agricultural classes when grain is scarce and prices are high. They have gained both by the better price they obtain from their surplus

Agricultural classes.

produce and by the smaller price they pay for imported luxuries, whereas formerly they could realize comparatively little from plentiful harvests, for in the absence of means of export the latter sent down prices and glutted the market with an unsaleable commodity. Although, therefore, the state of the cultivating classes as a whole cannot be said to be one of plenty, certain sections enjoy a fair measure of prosperity.

Labouring classes. The labourers in the villages have been equally benefited by the rise in the prices of food-grains, as wages are still paid in a great majority of cases either wholly or partly in kind. This system is particularly suited to an agricultural district like Balasore for whatever fluctuations may take place in the market, the labourer's wage remains the same.

There are three kinds of agricultural labourers (*muliās*), viz., the *bāra-māsia*, *nāg-muliā* and *thīkā-muliās*, of whom the first two are paid entirely in kind. The *bāra-māsia* is a labourer hired for *bāra mās*, or twelve months. He receives board and lodging in his master's house, and an annual wage of Rs. 12 or Rs. 15, of which a portion is often advanced to him free of interest, besides four garments (two *karujās*, one *gāmchā*, and one *chādar*) every year. The *nāg-muliā* does not live or eat in his master's house. He receives half a *gaunī* (5½ seers) of paddy for every day's work done by him, besides an annual present of a new cloth (*gāmchā*) and a cast-off garment of his master's. He is also allowed a plot of land (called *betā*) to cultivate for his own benefit, free of rent. Engagements for one year's service are made with the *nāg-muliā* in the month of Phālgun, at the *Dol* festival; and he receives on that occasion a loan of money, varying from Rs. 2 to Rs. 5, free of interest, which is repaid at the termination of the engagement. Such engagements are often renewed year after year for several years, the loan being repaid only on the final cessation of the contract. These coolies give the whole of their time to their master's business. A subdivision of this class, called *ādhā-muliā*, give only half their time, and receive only half the *betā* land and one cloth, the daily allowance of paddy being the same as with the *nāg-muliā*. The *thīkā muliā* is employed by no master in particular, but does day work wherever he is wanted, receiving in return a money wage, amounting to about 2 annas a day.

Here, as in other parts of India, the lot of the ordinary unskilled day labourer is rather hard. Spending what he earns from day to day, he has very little to pawn or sell in times of distress, and he is therefore the first to succumb in time of scarcity, unless he is carefully watched and given work within easy reach Unlike the Bihāri, the Oriyā does not move with his family in

search of work, and no labourer cares to go to a distant place for employment leaving his family uncared for and with the prospect of only earning enough for himself. The *kuthiā* or *kaliā*, *i.e.*, the unskilled labourer who is engaged by the year and paid daily in kind, is however better off than the day labourer. He has a better man to look after him, who, if an old master, does not forsake him till he is himself reduced to the very last straits; and besides this, he is generally allowed to hold about half an acre of land free of rent.

As regards skilled labour, the village artisans who never go out of the village form a recognized part of the village organization, and are also indirectly supported by agriculture. The ordinary artisan with a family of five earning 7 annas a day does not spend more than 5 annas, and is thus able to lay by something, which enables him in time to invest his savings in land, the great ambition of every man in Orissa. There is hardly any really skilled artisan, who has not, if he is a man of the mofussil, some land, and if a man of the town, some money-lending.

The houses of the cultivators consists of four mud walls enclosing a court, and used as the gables of little rooms which line the court inside. A Balasore husbandman has usually at least five of these little apartments,—one for his cows, another for his cook-shed, a third for storing his paddy, and two rooms for sleeping and general use. There is generally a verandah outside the wall on both sides of the principal door for receiving strangers, and as a place where the men of the family talk and lounge. Sometimes, but rarely, the cow-shed is built outside the walls. The mud enclosure stands in the middle of a bright green patch of vegetables, and the whole is shut in with a good fence of prickly shrubs. **Houses, clothing and food.**

The summer dress of a Balasore peasant is a cotton waist-cloth (*dhotī*) falling over the thighs, and tucked up when at work, with a scarf (*gāmchā*) thrown over his shoulder; occasionally also a turban envelops his head. A well-to-do shopkeeper wears an ample cotton shawl (*chādar*) instead of the scarf, which he sometimes twists round his head and ears. He has also a pair of coarse shoes, with long turned-up toes and no heels, elaborately, though roughly, embroidered with coloured thread. In winter the peasant wraps his head and the upper part of his body in a thick double sheet (*dohārā*), while the shopkeeper indulges in a broadcloth scarf (*lui*) and a cotton shirt. A peasant's furniture consists of a few brass pots, platters and cups, one or two very rude bedsteads, a few mats, and sometimes some instruments of defence. The better class have generally one or two palm-leaf

books on Hindu mythology in their houses, or a legend out of the Mahābhārata or Rāmāyana.

Rice and milk form a peasant's food, even dried fish being a luxury among the poorest classes. The year's supply of it is stored up in reed baskets, and sparingly doled out. Vegetables also are luxuries not always within their reach. The peasants set aside their boiled rice till it turns slightly sour, and esteem this unpalatable mess a favourite article of diet. After boiling, the rice is allowed to stand for 24 hours in water, until fermentation has slightly set in, and to this sour mess a little salt is added. It need scarcely be added that this the invariable diet of the Oriyā peasant is unstimulating and unwholesome.

Indebtedness.

Regarding the indebtedness of the people, Mr. Kingsford writes as follows:—"Owing to the reticence of ryots, information on the subject of indebtedness is very difficult to obtain. Secrecy regarding their circumstances has become ingrained in them. It is natural that an improvement in condition should be a matter for concealment, since open prosperity has often been the cause of exaction. An old Māsthān Brāhman, who haunted a settlement camp in *pargana* Senaut, had inherited a few acres of land from his father at the age of 25. He now has half a lakh of rupees buried in the floor of his hut, yet a coarse *dhotī* and a still coarser *gāmchā* are all the clothing he has ever been known to wear. Though the circumstances of this man are matter of common knowledge, the tradition that the admission of prosperity is disastrous would suffice to prevent him from generally admitting them. It is not so clear why the habit of secrecy should extend to those in impoverished and involved circumstances; yet it does so, and it was found impossible to ascertain what proportion of ryots in an ordinary village were indebted and to what extent. I believe it, however, to be the fact that excepting a few *lākhirājdārs* and well-to-do cultivators, and excepting the poorest classes who cannot borrow because they have no security to offer, there are very few ryots who are not indebted to the zamīndār or the *mahājan* for loans of grain or money.

"Many causes have contributed to this result. The peasant of this district is even less industrious than his brethren in Cuttack, and his husbandry more careless and negligent; a fact which, with the increase of subletting, must be held partially attributable to low rentals. Very few families have stocks to last them longer than 9 months from harvest time, and none amongst the ordinary class have money with which to meet extraordinary calls. A marriage entails an expense of Rs. 50 or Rs. 60, and that at a time when the son is at an age of fifteen and the daughter of ten,

so that the family increases rapidly without any corresponding increase in its resources. To borrow this sum, the ryot must go to the zamīndār or the *mahājan*, and in the latter case he must mortgage his holding or ornaments to twice the value of the debt. Calls for interest deplenish his stock of paddy, and in September, if not before, he must borrow grain for food. In November he is called on for his rent and must cut a portion of the standing crop before it is fully ripe, and dispose of it at a loss in the nearest market. In December and January he harvests the crop, and in February comes a fresh call for rent and for return of the borrowed grain. After meeting the April *kist* and purchasing the few simple tools he requires and a fresh pack-saddle for his bullock, he finds himself with less than last year's store, with the money debt still owing to the *mahājan* and with a monthly instalment of interest to discharge. But apart from the depression of circumstances induced by his own indiscretion, there is certain to come a season every 10 or 15 years when the crop fails through flood or drought, a misadventure which plunges thrifty and unthrifty alike into debt, from which they seldom manage to recover.

"Indebtedness is admittedly on the increase; and though the distribution of *khatiāns* has afforded ryots temporary relief by supplying them with an instrument which has much increased the value of their holdings, and represents a gift of some 30 or 40 rupees on the average of each family, there is reason to fear that in the course of the next 30 years the occupancy right will lapse to a large extent, and that the zamīndārs, who are already purchasing holdings in considerable quantity, will be in possession of an area of *nij-chās* lands much in excess of that which they now hold."

Money loans.

"The question of indebtedness may be concluded by some remarks on the methods of borrowing in vogue.

"Money loans are only required on special occasions and are obtained from the zamīndār or the *mahājan*. Under some circumstances, however, a debt incurred in grain is repaid in money and treated in all respect as a money debt. The landlord generally requires a stamped paper, which provides for interest at $3\frac{1}{8}$ per cent. per month to be punctually paid by the borrower. Sometimes renewal of the deed is required at the expiration of each half-year, the interest due being added to the capital, and the debt thus accumulates at compound interest. The *mahājan* requires security, either the mortgage of the holding or a pledge in the shape of ornaments and utensils to the value of twice the debt incurred. Interest is charged at the same rate of $3\frac{1}{8}$ per cent. per month.

Grain loans.

"Paddy and sometimes money are occasionally loaned by ryots to each other. For grain thus lent to oblige a friend no interest is required, but for cash the interest is at the ordinary rate of $3\frac{1}{8}$ per cent. per month. It is to the zamīndār or to the *mahājan* that application is ordinarily made. Advances of grain are generally made on the *pānchpāi* system, 5 maunds of grain being returned at harvest time for every 4 maunds borrowed. This is equivalent to interest at the rate of 25 per cent., but as the loans are usually taken about August or even later, and are scarcely ever current for more than 6 months, the rate of interest is, in fact, 50 per cent. per annum. The *mahājan*, who has no interest in the borrower's lands, generally exacts a higher rate than the zamīndār, whose security is better. In either case a *tamassuk* or stamped bond is executed and retained by the lender. So careless is the ryot, and so blindly does he sometimes trust himself in the hands of his zamīndārs, that cases are not uncommon where the amount of the debt and the terms of repayment are left blank upon the deed. The ryot signs it. He takes the paddy, and after bestowing a seer or two upon the servant who has measured it, returns home content with his bargain.

"It may seem incredible that such things should occur, but it is not perhaps a matter of extreme surprise, if it be considered how entirely many ryots are in the hands of an influential zamīndār. They know that the surplus of their produce will be taken both in the shape of rent and of repayment for previous loans, and they know also that unless they prove refractory, the zamīndār will allow them at least a competence. They have nothing to expect but to cultivate their lands and to be allowed to retain so much of the produce as is necessary for their maintenance; and they can rely upon their landlord for assistance in times of scarcity. They are, therefore, indifferent as to the amount of their debts and content to be bled in the knowledge that the operation is necessary, and that it is in their landlords' own interest not to allow it to terminate fatally."

Summary.

In conclusion, the following summary may be quoted from the Quinquennial Administration Report of Orissa for the years 1900 to 1905. The traditional style of living for each of the main classes continues, and the standard has been little raised, though a tendency towards spurious luxury is noticeable in some of the poorer classes. No new industries appear to have been opened. An institution, called the Utkal Union Conference, has been started since 1903 for the improvement of the social and economical condition of the people, and the subject of industrial development appears to be receiving some real and sustained attention; and

it is possible that the next few years may see some progress in this direction. But, at present, the bulk of the population is not only agricultural, but trade and commerce is principally in the hands of foreigners. Social and religious ceremonies continue to be as numerous and indispensable as ever, and there is no tendency observable towards diminution of expenditure on them. Debts are contracted more for these purposes than for agricultural operations, but no reliable statistics are available to differentiate between those incurred for one or the other. The railway, which was considered to have opened up possibilities of improvements, has, with the gradually developing system of feeder roads, become a means of easy transport, and is coming into greater favour with the trading classes, so that the produce of the country is finding its way more quickly into larger markets. In fact, during the last six years, notwithstanding the strongly conservative instincts of the people, increasing activity in trade and a general aspect of increased prosperity have been distinctly noticeable, and the whole Sub-Province is slowly moving along the path of progress.

CHAPTER IX.

OCCUPATIONS, MANUFACTURES AND TRADE.

OCCUPATIONS.

Agriculture.

BALASORE is essentially an agricultural district, and the great majority of the people are dependent on cultivation. At the census of 1901 it was found that no less than 79 per cent. of the people were supported by agriculture, and 31 per cent. of these were actual workers, including 8,000 rent-receivers, 245,000 rent-payers and 4,000 field labourers. It has, however, to be borne in mind that there are very few who do not cultivate a little land when they have the means or opportunity to obtain it, even though it may not be their principal means of support; even the traders and artisans, except the very poorest, have their own patch of land, which they bring under cultivation either themselves or through hired labourers. The rent-receivers or zamīndārs are mainly Hindus, often Bengalis who have settled in Orissa, belonging to the Brāhman, Kāyasth, Karan and Tāmbuli castes; but there are a few Muhammadans among them. The non-cultivating land-owners are chiefly Brāhmans, most of whom have small *lākhirāj* holdings, which they cultivate through their servants; the Balarāmgotri Brāhmans, however, cultivate with their own hands. The tenant cultivators are drawn principally from the Khandaits, Rājus, Chāsas and Gauras, who are professional hereditary cultivators, but practically all the castes are represented among them. Landless labourers are not confined to any particular castes, but range according to circumstances from the comparatively high caste Khandaits to the semi-barbarous aboriginal tribes bordering on the western hills. They are commonest in the south, where the population is dense and the competition for land is keen; in other parts it is not difficult to obtain a small area for a produce rent in any sparsely inhabited tracts where land is being brought under cultivation.

Industries.

Industries support 9·6 per cent. of the population, and 59 per cent. of the members of this class are actual workers, including 12,000 fishermen and fish-dealers, 13,000 grain-parchers and rice pounders, 9,000 cotton weavers and spinners, 3,000 basket and

mat makers, besides numerous goldsmiths, ironsmiths and potters. The main fishing castes are the Kewats, Gokhās and Tiyars who also make their own nets. The Tāntis weave cotton, and the Kandrās generally prepare ropes for sale in the markets, but spinning and rope making are not confined to any particular castes. Most of the tailors are Muhammadans, and the preparation of oil forms the chief occupation of the Telis. Aboriginal tribes, such as the Santāls and Bhumijes living on the western border of the district, supply the greater part of the firewood and charcoal brought to market. Baskets and leaf plates are made mostly by Doms, but also by the Pāns and Kandrās, while mats are prepared in the northern part of the district by Kandrās. The Rārhis parch grain; Sunris are occupied in the preparation and sale of liquor; Chamārs draw toddy and make brooms; and shoe making and leather tanning form the occupation of Muchis. The Kumhārs are the potter caste, Pathuriās work in stone, while builders generally come from the ranks of the Muhammadans.

Commerce.

The proportion of the population supported by commerce is very small, amounting to only 0·3 per cent.; but many of the artisans, though not actual shop-keepers, deal in the products of their workmanship and thus contribute considerably towards local trade. The Oriyā has, as a rule, a faint idea of trade and little commercial enterprise, his horizon being bounded by usury, which requires a small expenditure of energy and grows fat, as it were, by feeding on itself. The chief merchants and traders are foreigners, the rice merchants being principally Muhammadans from Bombay, the cloth merchants Mārwāris from Jaipur and Mārwār, and the hide dealers Kābulis from Afghānistān. Among the local mercantile community the most important are Tāmbulis, who are general merchants, Subarnabaniks, who are general money-lenders and pawn-brokers, Gandhabaniks and Aguris (Ugra Kshattriyas), who are shop-keepers, Kāpuriās, who sell cloth, and Sunris, who are liquor vendors; while confectioners or sweetmeat-sellers belong to the Guriā caste.

Professions.

Altogether 1·1 per cent. of the population derive their livelihood from professional pursuits, and of these 46 per cent. are actual workers, including 1,000 priests and 1,500 teachers. The great majority of the people shewn under this class consist of Brāhmans. At one time the Brāhmans confined themselves to the study of the *sāstras*, the worship of the gods, and to officiating at social and religious ceremonies. But now they have ceased to look to priesthood as their only means of livelihood, and have taken to various other secondary pursuits to eke out their income as priests. There are high class Sāsani Brāhmans, however, who yet adhere

to their priestly calling. The religious mendicants are supplied by Vaishnavas among the Hindus and Fakīrs among the Muhammadans. The higher class of officers in the Department of Education are mostly recruited from Bengalis, either recently arrived or domiciled in Orissa. In former days, when communication with Bengal was not so easy as it has now been rendered by the opening of the railway, many of the Bengalis, whom business and religious zeal led to this part of the country, settled here. The descendants of these families are far ahead of their Oriyā brethren in respect of culture and education, though the latter are now beginning to follow in their train. The lower grades of teachers, *gurus*, etc., are officered by Brāhmans and Karans, and occasionally by Khandaits These remarks apply equally to literature and law, and also to a great extent to engineering, surveying, etc. Petition-writers, copyists and public scribes, however, are not confined to these castes, and in the lower grades of engineering a fair sprinkling of Muhammadans is found. Unlike Bengal, the village physicians are not confined to any particular castes. There are some Baidya families who emigrated from Bengal and settled here, and who yet retain their ancient calling, but their number is limited.

Other occupations. Among those engaged in other occupations are 4,000 herdsmen, 7,000 beggars and 24,000 general labourers. Gauras and Pāns breed and herd cattle ; sheep and goats are bred by Pāns and Kandrās ; and the pig dealers are Ghusuriās. Among musicians the pipers belong to the caste called Mahuriās, while the drummers are mostly Pāns and Kandrās. Beggars and labourers are not confined to any specific caste. The *shīkāris* or hunters of the field consist of Pāns, Savars, Kelās and Siyalgirs ; and the butchers, fowl and egg dealers are all Muhammadans. Barbers belong exclusively to the caste called Bhandāri or Nāpit, and washermen to the Dhobā caste. Cooks are mostly Brāhmans, and indoor servants are recruited from various castes by whose touch water does not become contaminated. The coachmen are mostly Muhammadans, but the grooms come almost exclusively from the Pān caste ; while sweepers are drawn from the Mehtar castes.

MANUFACTURES. The importance formerly attaching to Balasore as an industrial centre may be gauged by the fact that in the 17th century it contained the factories of no less than five European nations, the Portuguese, Dutch, Danes, French and English. The chief settlement of the English was in Balasore town, but they also had subordinate factories at Bhadrakh, Soro and Balarāmgarhi, round which weavers' colonies gathered. The fine cotton cloths and muslins produced by their looms formed the chief article of

commerce, and frequent mention is made in the early records of the English of the Balasore "sannoes" and "cussayes," as these fabrics were called. With the general dislocation of trade caused by the Marāthā raids the industry appears to have languished, and it did not revive when the *pax Britannica* was introduced. In a report submitted by the *Faujdār* of Balasore in 1761 we find rice, iron and stone plates referred to as the principal exports, and cotton cloths are not mentioned; while Stirling, writing in 1822, has left it on record that "the manufactures and trade of Orissa proper are very inconsiderable and unimportant. A sufficiency of the coarser cloths is made for the use of the inhabitants in all parts of the district. The calicoes of Balasore, Soro, Bhadrakh, Jānjipur and Hariharpur were once prized and sought after under the name of Sannahs, but the demand for the finer fabrics of that description having long since declined, the quantity now manufactured is very trifling."

At this time, however, the manufacture of salt was a very important industry giving employment to large numbers. Saltpetre was in great demand for gunpowder, a demand which was increased by the long French war; and Government had accordingly established a monopoly in the salt manufacture. We find that the Ricketts Canal was made simply to afford a ready means of transport for the salt from the *arangs* or salt lands in the south to the port of Churāman; and further north the Hijilī and Tamlūk Salt Agents had acquired between 1805 and 1810 about 15 square miles of land along the Subarnarekhā to be used as *jalpāi* land, *i. e.*, the jungle and grass were cut and used for burning in the process of manufacture. The finest salt of all India, says Stirling, was manufactured in the wild inhospitable tract along the sea-board and yielded annually to the East India Company a net revenue falling little short of 18 lakhs of rupees. The monopoly system was abolished in 1862-63, but salt making continued for many years later to be the staple manufacture of the district. In 1875-76 nearly 200,000 maunds were manufactured, but the industry has been ruined by the importation of imported salt and has been abandoned; salt is, in fact, now the largest import of the district.

At the present day, the manufactures of the district are insignificant and the only industries are small hand industries. The reason for this economic backwardness is that the population is almost entirely dependent on agriculture, there are no manufacturing towns, and each village is a self-supporting industrial unit. The people grow and husk their own rice, build their own houses, and require very few articles of foreign manufacture.

Coarse cotton cloth, brass and bell-metal utensils and a few other articles manufactured locally, such as baskets, pottery, mats and agricultural implements, meet most of their wants, and the artisans who make these articles form, and have formed for centuries past, a component part of the village community, being paid largely in kind and, in some cases, holding lands in remuneration for their services. A brief account of the small industries of the district is given below.

Cotton weaving. Cotton weaving is still carried on throughout the district by Tāntis, who weave coarse cotton cloths, which cost double as much as the cloths of English manufacture, but last a year, while the foreign cloths last only six months. The only trace of the muslin manufacture for which Balasore was once famous survives in Bhadrakh, in Kedārpur in *pargana* Bānchās, and in Balasore town, where muslin of a superior kind is woven. It is used by native gentlemen for ceremonial purposes, *dhotīs* of this descriptions costing Rs. 20 a pair. Almost all the yarn used is imported, but spinning is still carried on to a small extent by members of the Tulābhinā caste, who use machines made locally for the purpose, and by Brāhman widows, for whom this is proverbially considered a suitable and respectable occupation. They use a small hand instrument, and the Brāhmans' sacred threads are all made in this manner.

Silk weaving. Silk weaving constitutes a small hand industry; it is not carried on on any extensive scale, and the only kind of silk manufactured is tusser silk. The industry, such as it is, is carried on by some 200 persons, by far the greater number of whom live in the northern part of the district, in the villages of Pātpur and Rāibaniā; the rest are inhabitants of the village of Purusanda in the Bhadrakh subdivision. In the north the weavers are not confined to any particular caste, but are real natives of the soil; and a Brāhman is as much at liberty to engage in the manufacture of tusser silk as a Kāpuriā, a Rāju, a Jolāhā, or a man of any other caste. This manufacture is not, however, their sole occupation. They follow their respective avocations, and consider the industry as only a supplementary means of augmenting their limited income. In the Bhadrakh subdivision the weavers are known as Bengali Tāntis (weavers) and are not original natives of the soil, from whom, however, they are at present hardly distinguishable; they migrated from Bengal and settled down in this district many years ago, but now speak the language of the country of their adoption, and have, more or less, accommodated themselves to the conditions of their environs. They number only about 50 men all told, but

silk manufacture is their sole occupation; a man is, in fact, excommunicated for ploughing land with his own hand.

Among both these classes of men, the rearing of silk-worms or cocoons does not form any part of the industry. They purchase cocoons from the Santāls and the Bhumijes of the Garhjāts (Mayūrbhanj and Keonjhar) at the rate of about 200 per rupee, then boil them in hot water, reel them, and gradually draw all thread out of them. Afterwards they knead the thread with a paste of boiled potatoes, dye them, and weave them with ordinary looms. The articles thus manufactured, after meeting the demand of local consumers, mostly Hindus, who have to use such cloths for various religious ceremonies, are sent to the merchants of the towns of Balasore and Cuttack and to Muhammadnagar-patnā within the Jaleswar thāna. It has been estimated that cloths to the value of Rs. 5,000 are sold by the manufacturers of this district annually. The local name of the cloth is *kāntiā*.

As regards the weaving industry as a whole, it may be said that the products of the local looms cannot, at any rate in the towns and larger villages, compete with the machine-made articles of English manufacture, though some are prized for their fine texture, and hand-woven cotton cloths still hold their own in rural tracts owing to their durability. The industry is therefore not thriving, and the weavers are taking up other means of earning their livelihood in increasing numbers.

Other industries.

The other industries are of little importance. Mats of three kinds are made. The reed mats called *hensa* are prepared by all classes for home use, the Pāns making a large number, which they sell in the markets at one or two annas each. They are thick, and the poorer classes use them to cover them at night during the cold weather. The date-leaf mats called *pātiyā* are made by the gipsy castes, Kelās and Ahīrgauras, and are sold for an anna a piece in the markets. *Chatāi* or matting of a coarse description is also made by the Rājus, Chāsas and other cultivators in Kamardāchaur and Kakhrāchaur for local use. Rope is made of jute and flax by the cultivators in most parts of the district to supply their own wants, and string of coco-nut fibre and jungle grass by low caste women for sale. Palm-leaf umbrellas, hoods and hats are universally made by Chamārs and used by cultivators in the fields. The labourers prefer the hood in summer and the hat during the rains. Nets are made by fishermen for their own use, but a small cast-net manufactured in the north of the district is sent to the markets and to Balasore for sale. Baskets of reeds and bamboo are

made by the low castes, some of a very large size being used for storing paddy and others of a small size for carrying purposes. Earthenware, consisting of jugs, pots, cups and other articles, is manufactured in all parts of the district by Kumhārs and brought to market for sale. Gunny-bags were formerly made in large numbers near Chāndbāli, but they have been now displaced by the Calcutta article, which merchants find it cheaper to import. Bags called *akhā*, which are used for carrying rice, paddy or salt, are made of flax or jute, and are also used for pack-saddles. Brassware and bell-metal utensils of all descriptions, including heavy brass ornaments for women, are made by the local braziers, chiefly at Balasore, Erdā in *pargana* Senaut and Remunā. The Remunā bell-metal ware is acquiring some local reputation, and considerable quantities are exported. Ornaments of brass and bell-metal are worn by the poor and low caste women, but the manufacture is declining owing to the import and sale of German silver ornaments at a cheaper price.

Mines. There are no mines in the district, but laterite, sandstone, gravel, etc., are quarried for building and road-metalling. The rock most generally employed for building purposes in the district is laterite. This is largely used in the construction of the walls of houses and also for buildings of greater pretensions. Few rocks present greater advantages from its peculiar character; it is easy to cut and shape when first dug, and it becomes hard and tough after exposure to the air, while it seems to be very little affected by the weather. Indeed, in many of the sculptured stones of some of the oldest buildings in Orissa, the chisel marks are as fresh and sharp as when they were first built. It is, perhaps, not so strong, nor so capable of resisting great pressure or bearing great weights, as some of the sandstones or the more compact kinds of gneiss, but it certainly possesses amply sufficient strength for all ordinary purposes. It is largely used at the present time, but has also been employed from the earliest period from which the temples and buildings of the country date, and the elaborate specimens of carving and ornament, which some of these contain, show that the nodular structure and irregular surface of the laterite does not prevent its effective use for purposes of ordinary ornamentation. It is quarried in a rude but effective way; a groove is cut with a rudely pointed pick round the slab which is to be extracted; another is made underneath, and then a few wedges are driven in to split off the block. Slabs from 4 to 5 feet long are easily procurable in this way; while the more loose and gravelly forms of laterite are used for road metal, for which they are admirably adapted.

Chlorite, known locally as *muguni*, which is found in the Nīlgiri hills and in *kilās* Talmundā and Mangalpur, has a considerable local sale and is also exported to Calcutta. The rock yields a compact and very tough material, though fairly easy to work, and is admirably suited for fine carvings. Blocks of almost any size can be obtained, the only impediment being the difficulty of transport from the high hills on which it is generally found. The most general use of this rock at present, however, is for the manufacture of plates, bowls, basins, etc., which are in common use all over the country. The tools employed in the manufacture of these are of the rudest kind; a short round bar of iron pointed at one end and a wooden mallet suffice to procure from the rock a piece of size sufficient for a plate or bowl. This is rudely cut into the intended form by the quarryman on the spot, and the half-finished materials are brought down from the quarries or holes on the hill-side and finished by different workmen in the villages below. This is done partly by hand with finer tools, partly on a simple lathe. The finished plates, etc., are then transported to the markets by the merchants who deal in these articles.

TRADE.

Trade under the Marāthās.

In the early days of the English settlement, in what Sir William Hunter calls "the era of armed industry," the trade of Balasore was practically limited to the small area held by the factories. "Every year," he writes, "our factors made their advances in good English silver, and got together an 'investment' in country goods. High profits covered the losses which the marauding soldiery now and then inflicted on us, when they burned a weaving village which had got an advance from the factory, or speared a few hundred artisans working at our expense. Indeed, the universal misery of the Province rather strengthened our hands. The only safe place for quiet people was the English factory. Industry and commerce gathered themselves together around it, and manufacturing hamlets nestled within the shadow of its walls." These interruptions to the peaceful progress of English trade became, however, very serious when the Marāthās burst down upon Orissa. In 1748 the Marāthā horse attacked the factory at Balarāmgarhi; in 1750 the Resident at Balasore reported that owing to the Marāthā raids he could not "purchase any ready-money goods, as the weavers or greater part of them have been obliged to abscond;" and again in 1753 he wrote asking for 1,500 or 2,000 maunds of rice as the weavers of Balasore were complaining of the great scarcity of rice and provisions of all kinds occasioned by the devastations of the Marāthās who had plundered Balasore; "several weavers," he added, "have

brought their looms into the factory, and the few who remain declare that they shall be obliged to quit the place." Outside the factories the trade of the country was paralyzed by the oppressions of the local officials. However cheap might be the inland markets, the tolls and custom houses on the roads and rivers made the goods too dear for exportation; and anything like internal trade was rendered impossible by the incessant black-mail which was levied. Besides the royal officers who imposed a tax at every few miles, each petty proprietor through whose estate the route lay lined the road with rapacious myrmidons; and in the short journey of 103 miles from Balasore to Cuttack the tolls amounted to nearly a third of the total value of the goods.

Trade under British rule.

When the British finally conquered Orissa, the only trade worthy of the name was an export trade, chiefly in rice and salt. Considerable quantities of these articles were still exported from the ports, which were chiefly frequented by three kinds of craft, viz., Maldive vessels, which brought cowries, coco-nuts, coral and dried fish, and took back rice and earthen pots; the sloops which carried the Government salt to Calcutta; and sloops, built at Contai and Hijilī, which only came in the cold season and carried rice to Calcutta. The Rājā of Kanikā carried on a considerable trade in rice on his own account, and large numbers of swine and cattle found their way by land to the Calcutta market. The export trade, however, gradually dwindled down to a fraction of its former importance, and in 1813 the Collector reported that the only articles exported were rice and a little salt (about three lakhs worth) and that trade was hardly known even by name. The internal trade was equally limited and was confined to the supply of rice and other articles of every-day use or consumption to the towns, and the mutual exchange of surplus produce and articles of home manufacture at the *hāts* or markets in the interior.

During the early days of British administration, however, Balasore was in a far better position than the adjoining district of Cuttack, which was in constant want of supplies and frequently on the verge of famine. Time after time urgent calls were made on Balasore for rice, and pilgrims had to be warned of the scarcity in Cuttack and directed to supply themselves with provisions before entering it. There was, however, no scarcity 20 miles north of the Mahānadī; at Balasore rice sold at 65 seers for the rupee; there was enough in store for three years' consumption; and there were immense stocks at Dhāmra and Churāman intended for export to Madras. For a long time, however, the produce of the country had but little access to the inland markets

outside the district, and even in the district there was very little trade between markets remote from each other. The Jagannāth road and the road to the Madras Presidency were the principal trade routes and pilgrim routes, but except for these, there were very few roads, and those so called were little better than primitive footpaths. Under these conditions, trade was naturally confined within the narrow limits imposed by the small carrying capacity of the country carts and pack-bullocks. The famine of 1866 and the inquiries that followed taught the authorities the imperative necessity of bringing the trade of the country in close touch with other parts. The vigorous measures that have since been adopted in opening up roads and canals have been of the greatest benefit to the country. The development of the ports at Chāndbāli, False Point and Balasore, and the improved facilities of canal communication with the first two ports, have created a market for produce, and have brought into existence foreign trade, with its agencies and sub-agencies, through the influence of which prices in the interior now rise and fall in close sympathy with the foreign markets.

Imports and exports. The chief imports are salt, sugar, European piece-goods, wearing apparel, cotton yarn, hardware, and Indian products, such as gunny-bags, coco-nut oil, spices, *ghī*, drugs and raw cotton. The largest imports are salt, which is brought in large quantities from Madras, and European piece-goods; and the principal export is rice, which in favourable seasons is despatched in enormous quantities, by sea, canal and railway. Other exports are hides, jute, oil-seeds, timber and stoneware. A considerable quantity of the grain exported comes from the Garhjāts, and several traders from Balasore visit Nīlgiri and Mayūrbhanj and purchase the crops upon the fields. At Chāndbāli also it is a common practice for the exporters to send out agents among the villages, who purchase the crops before they are reaped by making advances to the cultivators. Rice is shipped oversea to Ceylon and Mauritius, and sugar is obtained from the latter island by merchants who keep up a connection with Muhammadan traders controlling the sugar industry there; but with these exceptions, trade, both import and export, is carried on chiefly with Calcutta and Madras. The greater part of the sea-borne trade consists of imports, and its total value fell from 67 lakhs in 1900-01 to 53½ lakhs in 1904-05, the value of imports declining from Rs. 42,70,000 to Rs. 27,67,000. On the other hand, the value of the exports rose from 24¼ lakhs to 25¾ lakhs in the same period, in consequence of the large export of rice to foreign ports. The year 1905-06 witnessed an

expansion of the sea-borne trade both as regards imports and exports, the value of the latter being 33½ lakhs and of the former 28½ lakhs, the total increase amounting to 8¾ lakhs; but it is reported that there is little hope of the import trade being able to withstand the competition of the railway, which is securing more and more of the traffic.

Trade routes.

The trade of the district used to be carried on by means of native coasters plying to and from Calcutta and Madras by sea, but when the Coast Canal afforded greater facilities for trade, a great deal of the traffic was transferred to country boats using the canal; this circumstance, as well as the silting up of the mouths of several rivers, led to the minor ports of Subarnarekhā, Churâman, Sārathā, Laichanpur and Chhānuyā being closed in 1888. The railway, however, has now established direct communication with Calcutta and Madras; it has supplanted the canal as the chief artery of commerce; and the main trade is that which is carried out of the district and brought into it by this route. At the same time, a busy trade is still carried on by sea from the port of Chāndbāli, which is used by steamers and sailing vessels plying to and from the ports along the coast of Burma, Bengal, Madras and Bombay, as well as Ceylon, the Laccadive and Maldive Islands and Mauritius.

Trade centres.

Besides Balasore and Chāndbāli, which are the chief centres of the sea-borne trade, there are minor ports at Māndhāta and Batanga on the Coast Canal, Bāliāpāl on the Matāi and Bārabātiā on the Guchidā river. A small export trade is also carried on at Tālpadā, Inchuri and a few other villages along the Coast Canal, at Churākhāi on a tidal creek connecting with the Pānchpāra, and at Pānchrukhi on a tidal creek connecting with the Subarnarekhā near Jâmkundā. The most important entrepôts for inland trade in the north of the district are Balasore, Singlā, Deulā and Shâhaji near Balasore; and in the south Bhadrakh, Chāndbāli, Jhāmjhāri and Turigariā. It is likely, however, that in the course of the next few years new markets will spring up in proximity to the railway stations, and that some now existing in less convenient situations will decline.

At present, the greater part of the local trade is carried on at the various *hāts* or markets scattered throughout the interior. These markets, though generally not of any great size, are conveniently situated for the supply of local wants and as centres at which grain is collected for export. The commodities ordinarily exhibited for sale include cottons of local and English manufacture, brass and bell-metal utensils and ornaments, kerosene oil, provisions of all sorts, such as

paddy, rice, salt, spices, molasses, dried fish, vegetables, fruit, fresh fish, castor and mustard oil, gram, confectionery, fried rice, milk, *pān* for chewing, earthenware pottery, blacksmiths-ware, mats, brooms, fuel, cheap finery, hair oil, mirrors, combs, soap, needles, pins, tobacco, scrap iron, cotton thread, string, rope, and small utensils and lamps made of tin. At markets of a larger size there is often a trade in special articles, including cattle, timber, charcoal, yarn, tamarind, resin, drugs, medicines, *ghī*, and Oriyā books and tracts sold by missionaries; while Kābuli pedlars sell warm cloths of various descriptions in the cold weather. The regular shop-keepers do a lucrative trade and make a profit of from 50 to 100 per cent.

From noon till 9 o'clock at night the Oriyā market presents a busy scene. The traders set out their wares each in his appointed place. The drummer and flute-blower make music at every shop in turn and receive a few pies or some of the small articles exposed for sale. The sweeper collects a similar contribution. The village postman attends to deliver letters, and the zamīndārs' peons to press the ryots for their rents. People, women predominating, flock in with rice or fish for sale and to make purchases for their families. The *dandidār* or weigher appointed to supervise the market goes round to receive his commissions on the sales or to give his opinion on the rates to prevail for the day. The *gumāshta* of the zamīndār or the *ijārādār* who has taken a lease of the market, collects his fees (*tolā*) in kind or cash or sometimes a stipulated annual rent from every shop. The money-changer exhibits piles of small coins and cowries, and a shop-keeper may be seen bartering his goods in exchange for articles of domestic use. The average attendance at the larger markets is probably 700 to 800, and people come to them from a distance of 10 or 12 miles.

CHAPTER X.

MEANS OF COMMUNICATION.

DEVELOPMENT OF COMMUNICATIONS. WHEN the British conquered Orissa in 1803, it was practically isolated from the rest of India, and there was but little internal communication. In spite of the long sea-face, few vessels ventured to put in at the surf-beaten coast, and no measures were taken to survey the harbours or ascertain the capabilities of its estuaries. Traffic along the rivers, then as now, was rendered difficult by the enormous volume of water brought down in the rains and by the fact that in the dry season they dwindle in their upper reaches to small streams running through broad sandy beds. In addition, however, to the natural difficulties of the river route, the vexatious imposts and transit-dues of the Marāthās, as well as the blackmail which they levied, made it impossible for the boatmen to ply their trade with any profit, and these natural channels were little used. Throughout the district there was not a road, in the modern sense of the word, in existence. What were then called roads were mere fair-weather cart tracks without bridges; and the pilgrims to Purī, who are now quickly transported there by the railway, were forced to follow the dangerous route through Nīlgiri and Mayūrbhanj, which in many places passed through dense jungles infested by tigers and other wild animals.

The first step taken to remedy this state of affairs was the construction of the great Orissa Trunk Road, which was sanctioned in 1811 and completed in 1825. It was not metalled, however, and was not properly bridged. According to an account written in 1841, "the bridges, with the exception of two or three large pucka ones, are exceedingly rude and insecure, consisting of a few posts with planks laid across, or large rings made of baked clay, over which earth is thrown and turfed; they are constantly giving way from the timber rotting or the rings breaking. At Chooraman there were three small iron chain bridges erected by Mr. Ricketts, but two of them have gone to decay, and the third is in a dilapidated state. With the exception of this road, there are none deserving the name, for they are all merely paths; trade

between the town and villages is carried on with bullocks, banghy and coolies; hackeries, for the want of roads, are seldom, if ever, used." Twelve years later Mr. Ricketts dryly remarked that "there is no travelling on this road for pleasure, and for eight months of the year it is in such a state that no merchants attempt to move goods by it."

State of affairs in 1866.

The terrible deficiency of communications which still existed as late as 1866 was made apparent in the great Orissa famine when it was said that "the people were shut in between pathless jungles and impracticable seas, and were like passengers in a ship without provisions." The state of affairs at that time was graphically described by the Famine Commissioners of 1867 as follows:—"The whole province is geographically isolated to an excessive degree. To the north and north-west the hill tracts merge into countries more hilly, wild and inaccessible, by which they are separated effectually from Central and Northern India. On the other side, the nature of the coast and the sea is such as effectually to stop all native traffic for the major part of the year. With one exception—False Point—there is no protected anchorage of any kind, and that exception may be said to be in some sense almost a recent discovery. Such being the difficulties on either side of the length of Orissa, the only ordinary mode of communication with the outside world is by the route traversing its length. That, however, is so much intersected by the streams already mentioned, and has been hitherto so little rendered practicable by art, that it is comparatively little used by wheeled carriages; pack-bullocks still predominate at all times; in the rainy season wheeled traffic is quite impracticable; and when the rains are heavy, even pack-bullocks cannot be used. At this day the European officer who cannot obtain a special steamer must find his way into Orissa slowly and tediously, as ancient officers may have travelled in the days of Asoka, and the very post takes several days between Calcutta and Cuttack."

The famine of 1866 directed attention to the state of all the Orissa districts, and measures were taken to prevent the recurrence of a similar disaster, roads being opened up, the coast surveyed, and canals constructed. The communication with the outside world which was thus established effectually broke in upon the isolation of Orissa, and more recently the Bengal-Nāgpur Railway has extended its system through the district. It is now amply provided with means of communication by the railway and an extensive system of roads and canals, but the most pressing want is the improvement of existing roads so as to make them passable all the year round. This, however, is a very difficult and

expensive task in a delta like Orissa, intersected by a network of rivers, many of which cannot be bridged except at a prohibitive cost, and which periodically overflow their banks and inundate the surrounding country.

WATER COMMUNICATIONS.

Ports and harbours.

At the commencement of the 19th century Balasore was the only port of which Orissa could boast, and it was frequented chiefly by vessels from Madras, which put in for cargoes of rice, and by the Laccadive and Maldive islanders, from whom the cowries then used extensively for currency were obtained. The development of trade and the opening up of the country after the great famine of 1866 led to the establishment of several other ports; and 30 years ago there were said to be seven principal ports—Subarnarekhā, Sārathā, Chhānuyā (Chhaunā), Balasore, Laichanpur, Churāman and Dhāmra. Owing to the silting of the river mouths, to the construction of the Coast Canal, which facilitated the silting while it provided a new waterway, and to the abandonment of salt manufacture, some of these ports have ceased to exist, while the position of others has been changed. Thus Subarnarekhā is now represented by Batanga and Māndhāta on the Coast Canal and by Bārabātia on the Guchidā river; Pānchpāra has taken the place of Sārathā; Chhānuyā, Laichanpur, and Churāman have ceased to exist; a new port has formed at Bāliāpāl on the Matāi river; and Chāndbāli has absorbed the trade of the old port of Dhāmra, situated 15 miles lower down the river at the confluence of the Matāi.

Chāndbāli and Balasore are the only ports of any importance. In 1905-06, 163 vessels with a tonnage of 35,500 tons entered and 165 vessels with a tonnage of 36,500 tons cleared these ports, the value of the imports and exports being 28½ lakhs and 33½ lakhs respectively. The ports which trade with Chāndbāli and Balasore are Calcutta, the coast ports from Bombay on the west to Arakan on the east, and foreign ports, such as the Maldive islands, Ceylon, and occasionally Mauritius. Nearly all of this trade, however, is focused at Chāndbāli, which is the chief port of Orissa; and Balasore is declining owing to the advent of the railway, which now practically monopolizes all the export trade.

Passenger traffic is entirely confined to Chāndbāli, which is served by steamers of the India General Navigation and Railway Company and of the Rivers Steam Navigation Company. These steamer services ply thrice a week between Chāndbāli and Calcutta, and in 1905-06 brought 41,500 passengers, while 40,800 persons took their passages to Calcutta. Their number is gradually decreasing, as passengers prefer the railway journey to a se-

voyage, especially during the south-west monsoon. There is a light at Chandīpur and another on Shortt's Island at the mouth of the Dhāmra.

Rivers.

Notwithstanding the numerous rivers which intersect the district, there is no great inland river traffic in Balasore. The reason for this, apparently, is that during the rains they become dangerous for navigation owing to the high floods they bring down; and during the rest of the year their current is sluggish and the volume of water small. The larger rivers have sufficient water to enable boats to ply along the lower reaches, and there is a fair amount of traffic in tidal waters; but the other rivers are, on the whole, too shallow or too uncertain to be very largely used, and they do not possess any great value as trade routes. On this account, the use of boats is restricted, and the people have long been accustomed to carry on internal traffic by means of pack-bullocks and carts.

The rivers most used for purposes of navigation are the Dhāmra and the Baitaranī, which connect Chāndbāli with the sea, but along the Baitaranī traffic is mainly confined to the lower tidal reaches; in the hot weather the upper reaches are very shallow, and the small depth of water allows only small boats to ply along them. Further north, the Matāi, a river which connects with the Coast Canal at Chārbātia and thence flows into the Dhāmra at its junction with the Baitaranī, is a good navigable channel affording communication between the Coast Canal and Chāndbāli, and also with Cuttack. It is a tidal river as far as Ruknādeipur, 8 miles east of Bhadrakh, up to which point it is navigated by numerous country boats carrying goods to and from Chāndbāli. Neither the Sālandī, however, nor the Rebo and Kapālī carry any volume of water in the hot weather above the village of Kānpura half way between Bhadrakh and Chāndbāli; up to that place they are tidal, and country boats ply to and from Chāndbāli at all seasons of the year, while there is also a considerable amount of traffic with Bhadrakh, which lies on the Sālandī. The Burābalang again is tidal and navigable, ordinarily up to the town of Balasore and a little further during the the rains; while the Pānchpāra is tidal and navigable throughout the year as far as Churākhāi, 6 miles above Sulpatta. The Sārathā is tidal as far as the Coast Canal; and the Subarnarekhā, the most northerly of the Balasore rivers, is navigable for country boats up to the ferry of Kālikāpur, 15 miles from its mouth.

Canals.

The canal connecting the old port of Churāman with the Matāi river has fallen into disrepair, but both the Coast Canal and High Level Canal are navigable. The Coast Canal, which connects the

Hooghly at Geonkhāli with the Matāi at Chārbātia, has a range of 71 miles, and the High Level Canal, which runs as far as Bhadrakh, a length of 19 miles within the district. Two companies used to maintain a steamer service along the Coast Canal between Balasore and Chāndbāli; and there was a bi-weekly steamer transport service under the control of the Public Works Department along the High Level Canal between Bhadrakh and Cuttack, but with the opening of the railway, passengers ceased to use the former route, and the merchants abandoned the latter means of transport. These steamer services have consequently been discontinued. Traffic along the canals is now confined to country boats, and their number has decreased owing to the competition of the railway.

RAILWAYS.

The Bengal-Nāgpur Railway runs through the district from north to south and connects it with Calcutta and Madras and with the Central Provinces *viâ* Sini. Its length within the district is 88 miles, and it has 10 stations, viz., Jellasore (Jaleswar), Mayūrbhanj Road, Bastā, Rupsā Junction, Balasore, Khantāpāra, Soro, Mārkunā, Bhadrakh and Kenduāpadā. Three passenger trains run daily up and down along this line, which is the main line between Calcutta and Madras. The work of construction was commenced in 1895-96, and was completed in 1899 as far as Balasore is concerned, the line being opened for goods and passenger traffic in October 1899. The only other railway in the district is the Mayūrbhanj State Light Railway, a light 2′ 6″ gauge railway connecting Bāripadā, the principal town of the Tributary State of Mayūrbhanj, with Rupsā Junction. This line, which was opened at the end of 1904, was constructed entirely by the Chief of Mayūrbhanj, but is at present being worked for him by the Bengal-Nāgpur Railway. Its total length is 33 miles, and one passenger train passes each way daily; its chief use is to bring down timber from the forests of Mayūrbhanj.

ROADS.

The Orissa Trunk Road.

The principal road is the Orissa Trunk Road, which runs for a length of 95 miles from end to end of the district and affords communication with Midnapore and Calcutta on the north and with Cuttack, Purī and Ganjām on the south. It was built by Captain Sackville between 1812 and 1820, the portion between Cuttack and Bhadrakh being completed in 1819, and from the latter place to beyond Balasore in the following year. The metalling of the road was not completed, however, for 40 years, and the soling also appears to have been insufficient.

The only route to Purī from Northern India, this road exhibited a constant stream of passenger traffic till 40 years ago. For the accommodation of these pilgrims, there were *sarais* at

Râjghât, Bastā, Balasore, Bhadrakh and Akshuāpadā, built in 1827 at the expense of a wealthy Bengali Hindu, who also provided funds for the construction of many of the bridges, which to this day bear inscriptions recording his name and munificence. It is curious that these are almost the only works of public benefit, the outcome of private charity, to be found in this district, and it is significant that they are due to the generosity of a foreigner. The construction of these *sarais* and bridges must have done much to alleviate the distress and misery of the wretched pilgrims, returning from Jagannāth enfeebled by long months of travel, weakened by the rancid *mahāprasād* of the holy city, and exposed to all the evils of the rainy season, swollen and impassable rivers, cholera and starvation. The *sarais* have long since been abandoned, and all have disappeared; at Bastā only there is still to be seen a row of dilapidated buildings surrounding a square courtyard overgrown with jungle. There also existed originally along the side of the road a number of fine brick culverts leading over the road-side nullahs to the neighbouring villages. These too have all been allowed to fall into decay, and scarcely any are now standing. With the inauguration of steamer services between Calcutta and Cuttack in the sixties, the Trunk Road lost its importance as a pilgrim route, and of late years only a small number have travelled by it. Now that the railway is open, scarcely any pilgrims are to be seen, except an occasional *fakīr* measuring his length along the road upon his toilsome journey southwards.

The chief traffic of the road lies between Soro and Balasore. The former place is the central market of the Bānchās Ogar *pargana*; here paddy is collected for transmission by cart to Balasore, and hither come imports in the shape of oil and salt for distribution at the bazar and in the neighbouring markets. Pack-bullocks and occasional carts on their way to Balasore from Ambahatā and the neighbourhood join the road a mile south of Soro. Upon the road as a whole, however, the local traffic is inconsiderable. Each branch road and country track supplies a small quota of carts, or more usually of pack-bullocks on their way to Balasore or Bhadrakh; and in the north of the district many Santāli carts and coolies may be seen, coming from the Tributary States to Balasore with loads of timber, faggots, paddy, charcoal and other goods, such as horns, honey, fowls and hides, and returning with oil, salt and cloths. But the main volume of traffic is to or from places at a distance. Thus large herds of cattle start from Bhadrakh on their way to the Calcutta market, and long trains of carts pass with hides consigned

to the same destination, as well as to Midnapore, from which they bring back mats manufactured in that neighbourhood to Bhadrakh and Cuttack.

District roads.

The Trunk Road is in charge of the Public Works Department, which is responsible for the maintenance of 103 miles of metalled road; while the District Board maintains 38 roads with a total length of 307 miles. With the exception of 40 miles, these roads are unmetalled, but in proportion to area Balasore has the largest percentage of metalled roads of any of the Orissa districts.

Many of the district roads are fair-weather roads impassable for cart traffic during the rains, and in the north they are subject to damage from the floods of the Subarnarekhā. The Kamardā-Bāliāpāl, Bāliāpāl-Bastā, Kamardā-Jaleswar and Singlā-Nangaleswar roads are the most important in this part of the district, since they connect the local markets with the Trunk Road and the railway, but they are chiefly used by pack-bullocks. South of these the principal roads are the Pānchpāra-Haldipadā road and the road from Balasore to Mitrāpur in Nīlgiri, which passes through the important bazar of Remunā. Further south, there is a short branch road leading to Nīlgiri, and at the 16th mile of the Trunk Road below Balasore the road to Tālpadā on the Coast Canal branches off.

At Soro four roads converge, one from Gopīnāthpur on the borders of Nīlgiri, another from Anantapur on the east, a third stretching to the south-west and passing through Ambahatā to Bhadrakh, and the fourth running through Soro bazar and joining the Trunk Road 5 miles lower down at Jāmjhāri market. At this place a road branches off to Bāsudebpur on the Coast Canal, where it meets the old Salt Road from Balasore, which is now extended as far as Bhadrakh. It was by means of this road that Balasore used to derive its supply of the salt manufactured in the *arangs* of the south-east. At a point midway between Jāmjhāri and Bhadrakh a road runs westwards to Kupāri market in Ambahatā; and at Bhadrakh the roads from Bāsudebpur and Ambahatā converge, as well as two roads from Keonjhar on the west and Chāndbāli on the east. A few miles south runs the road to Dhāmnagar, and near the point where the Trunk Road crosses the canal a road has recently been constructed to Jājpur.

Perhaps the most important trade route is that between Bhadrakh and Chāndbāli. The surplus produce of the south-east of the district finds its way to Bhadrakh, and from this place most of it is sent for export to Chāndbāli, either *viâ* Ruknādeipur on the Bāsudebpnr road, whence it is carried in boats down the

Matāi and up the Dhāmra, or *viâ* Kānpura on the Chāndbāli road, whence it travels by the Sālandī. Traffic is, therefore, very heavy along these portions of the Bāsudebpur and Chāndbāli roads—on the former as far as Ruknādeipur and on the latter as far as Tihirihāt—but being unmetalled they are extremely difficult for cart traffic after heavy rain. The produce of the south-east goes direct to Chāndbāli along the country roads and tidal creeks, and the next collecting centre is Soro, whence the produce is carried to Balasore. In the north of the district there is no main centre, but produce gathers at the local markets and is sent for export at the various ports already mentioned.

Village roads. In addition to the District Board roads, there are a number of village roads, with a total length of 187 miles, under the District Board and the Balasore and Bhadrakh Local Boards. These are nearly all fair-weather roads, occasionally banked, but generally consisting of mere cart-tracks across the fields.

Ferries. There are 18 ferries under the control of the District Board, the leases being disposed of annually by auction. The most important are those at Phulwār and Rājghāt, where the Trunk Road crosses the Burābalang and Subarnarekhā respectively. At Phulwār, which is situated 3 miles north of Balasore, the main road to Mayūrbhanj branches off, and coolies, pack-bullocks and Santāli carts with solid wheels of a primitive type, come down in great numbers from Mayūrbhanj, bringing faggots, charcoal, *sāl* timber and paddy for disposal in Balasore town. The receipts from this ferry are consequently greater than from Rājghāt, though the Subarnarekhā is not fordable, while the Phulwār ferry is easily fordable for 7 months in the year.

Another ferry of some importance is that of the Sālandī at Bhadrakh, which plies only during the rains, the Sālandī bed being quite dry in the hot weather; and among others may be mentioned that of South Bāliāpāl over the Matāi, which is fordable at no time during the year, and that of Bāliāghāt over the Burābalang, opposite Balasore town. At the former all the rice brought from the Ankurā *pargana* and some from *Kilā* Kanikā is transported on its way to Chāndbāli. On the Subarnarekhā at the crossing of the Bāliāpāl-Kamardā road is the ferry of Kālikāpur, which is also unfordable, the river being tidal up to this point.

Bungalows. In 1830 the only public bungalows existing were those at Balasore and Bāripadā. The latter was a posting station and half-way house for travellers between Cuttack and Balasore, being about 50 miles distant from each. At the present day the district contains no less than 34 inspection bungalows, including the road

and canal bungalows maintained by the Public Works Department and those under the District Board.

POSTAL COMMUNICATIONS. There are altogether 256½ miles of postal communication and 34 post-offices in the district, but postal facilities are as yet inadequate to the area and population, and there is room for opening many more post-offices. The number of letters delivered in 1905-06 was 535,000 and of post-cards 330,000, in addition to 60,000 packets, 95,000 newspapers and 11,000 parcels. The value of the money-orders issued in the same year was Rs. 7,78,000 and of those paid nearly Rs. 8,10,000. On the 31st March 1905 altogether 2,906 accounts had been opened in the Savings Banks, the deposits amounting to Rs. 3,78,000, or 5·6 annas per head of the population, as compared with 5·5 annas in Cuttack and 2·4 annas in Purī; and in 1905-06 the deposits aggregated Rs. 71,700. There are 7 postal-telegraph offices, situated at Akshuāpadā, Bāliāpāl, Balasore, Bastā, Bhadrakh, Chāndbāli and Jaleswar.

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

IN the time of the Hindu kings of Orissa, the country was divided into two administrative divisions, viz., the military fiefs, composed of the hilly tracts on the western border together with a strip along the sea coast on the east; and the Crown lands, consisting of the more fertile alluvial plain running through the centre of the Province. The former had been granted to military chiefs by the reigning sovereign, on condition that they protected the border and furnished contingents to the State army in time of war. They had the full disposal of the land, and they may be regarded as proprietors in the completest sense of the word, having the title of *bhuiyā*, or, as translated by the Mughals, *zamīndār* or landholder. The other and more valuable portion of the country, comprising the greater part of the present districts of Balasore, Cuttack and Purī, was regarded as the property of the Crown, and the revenue was appropriated to meeting the expenses of the ruling prince and his establishment. The rents were collected from the ryots or cultivators and paid into the royal treasury by hereditary officials, who were also entrusted with the police administration of the villages under them. HINDU REVENUE SYSTEM.

The unit of the system was the revenue village consisting of a collection of houses, and the land, cultivated or waste, attached to it. A group of villages made up a district, called *khand* or *bisi;* the names of some of these fiscal divisions still survive in certain of the names of the *parganas*, such as Nunkhand and Derābisi. Over the *khand* or *bisi* were two principal officials, the *khandpati* or *bishayi* and the *bhoi-mūl*, the former of whom had to deal mainly with police administration, and the latter with revenue collections, though the two were considered jointly responsible for the payment of the revenue into the royal treasury. Each revenue village was similarly presided over by two corresponding officials, the *pradhān* or police officer, and the *bhoi* or accountant, who paid in the village revenues to the

administrators of the *bisi*. These hereditary officials, who merely collected the rents, and, in virtue of their office, enjoyed certain perquisites, have, together with many others in more recent times, come to be styled zamīndārs and proprietors. The only persons, however, who could with strict accuracy be called proprietors of the land are the ancient *bhuiyās* in respect of the military fiefs and the sovereign as the owner of the *khālsa* or Crown lands.

MUHAMMADAN REVENUE SYSTEM.

When the Mughals took the country, a regular settlement of the Mughalbandi, as the Crown lands were now called, was begun in 1582 by Todar Mal and was concluded in 1591 by Mān Singh, another Hindu viceroy of the Emperor Akbar. The lands held as military fiefs, which were known as the Rājwāra, were for the most part left untouched, but in the Mughalbandi the revenue system was reorganized, the *khands* or *bisis* became *parganas*, and the revenue villages became *mauzas*; the *khandpati* or superior police officer received the title of *chaudhri*, the *bhoi-mūl* or chief accountant that of *wilāyati kānungo*, and the *pradhān* that of *mukaddam*. Where a *pargana*, on account of its size, was divided into two or more portions, each having a separate set of *pargana* officials, these subdivisions were called *tāluks*, and the officials *tālukdārs*,—a name subsequently applied to all the *pargana* officials. The system of collection remained radically the same except that *sadr* or principal *kānungos*, with a *gumāshta* or deputy in each *pargana*, were appointed as a controlling agency to check the ordinary rent-collecting establishments. The *parganas* again were grouped under the three main divisions or *sarkārs* of Cuttack, Balasore and Jaleswar, each of which was in charge of an *āmil* or chief executive officer.

MARATHA REVENUE SYSTEM.

In 1751 Orissa became a Marāthā Province under the control of a *sūbahdār*. Balasore was divided into three *chaklās* or circles, viz., Bhadrakh, Soro and Balasore. These again were subdivided into *parganas*, each of which included a varying number of *tāluks*. An officer called *āmil* was responsible for the revenue of each *chaklā* and was assisted by a *sadr kānungo*, under whom again was a *gumāshta* (also known as *wilāyati kānungo*) who collected the revenue from the different villages. It was not long before the Marāthās commenced to oust the *tālukdārs* on the ground of unpunctuality in payment of the revenue; and towards the close of their rule it also became a common practice to take engagements direct from the village headmen or *mukaddams*, who had previously paid through the *tālukdārs*. About one-eighth of the total revenue-paying area was so held by *mukaddams*; and though it had previously been the custom to make a detailed

yearly computation of the rentals on which the latter were allowed a percentage for the expenses of collection, towards the close of the 18th century the *āmils* found it convenient to take engagements from them for a lump sum. This custom was also followed to some extent with those *talukdārs* who were fortunate enough to be left in possession of their estates. It was Rājā Rām Pandit, described by Stirling as the most enlightened of the Marāthā *sūbahdārs*, who first commenced to dispense with the *tālukdārs* as collecting agents in 1773, and subsequently most of them were dispossessed, the *wilāyati kānungos* making the collections direct from the ryots and paying them over to the *āmils* through the *sadar kānungos*. During the same period also the Marāthās introduced another practice, which resulted in the disappearance of a large number of these hereditary officials. The *sadr kānungo*, who generally stood security for the payment of revenue by the *tālukdārs*, was allowed, in cases of default, to take over the *tāluk* on payment by him of the arrear, and the result was that at the British accession, both *sadr* and *wilāyati kānungos* were found in possession of a large number of estates acquired in this manner.

Briefly, it may be said that the rule of the Marāthās gradually destroyed the fabric of civil administration built by the Mughals. All their efforts were directed towards extorting from the conquered Province the utmost it could pay; and peasants and officials alike were subjected to every exaction that ingenuity could suggest. Cultivation was attended with no security, rights were everywhere neglected and denied, the peasant was accustomed to regard a demand for rent not as a legitimate tax but as an exorbitant extortion, and the policy of his rulers taught him a contempt for right and a disregard for civil duty.

EARLY ENGLISH ADMINISTRATION.

The misrule of the Marāthās led not only to the impoverishment of the country, but also to a mistrust of the governing power on the part of the people. One result of this was that, when the British conquered the Province in 1803 and approached the question of its settlement, no revenue documents were obtainable from the officials, except certain *jamābandi* papers or records of assessment made over by the chief *kānungo* of the Marāthā government. No knowledge was, therefore, gained of the various rights of the *tālukdārs* or of the different tenures and titles of other collecting officers. Stirling's Minute of 1821 was the first attempt made to deal exhaustively with the subject, and it was not until the settlement of 1837-41 that rights and titles were finally settled and adjusted. Meanwhile, all was confusion. The Marāthā *āmals*, *sadr kānungos*, *tālukdārs* and *mukaddams* were all intent

on preserving for their own use the information which should have been in the hands of Government. Some were busy in establishing a proprietary title which had never existed, others in furthering a claim to hold rent-free lands liable to assessment. The hands of most were against their neighbours, and every man's hand was against the Government.

Early settlements.

The first settlement of the Province, which was for one year only, was concluded early in 1805 and was followed by a number of temporary settlements. A triennial settlement was first concluded, and then in 1808-09 another settlement was made for one year, which was afterwards continued for a further period of three years. Other settlements followed in quick succession—in 1812-13, for one year; in 1813-14, for two years; in 1815-16, for one year; in 1816-17, for three years; in 1819-20, for three years; and in 1822-23, for five years. The history of these early settlements is an unfortunate record of assessment on insufficient enquiry and of the enforcement of inelastic rules for the realization of inequitable revenues. The Collector had no reliable information as to the real assets of the estates, for the zamīndārs and *āmils* combined to withhold all papers, and he had to proceed on a very rough estimate of the quantity of land in cultivation and on the reports of interested subordinates. The evils arising from such ignorance of the real circumstances of the people, from the general disorganization of administration and the severity of the assessment were aggravated by the stringency of the Bengal Regulations and sale laws.

Under the rule of the Mughals and Marāthās the persons whom we recognized as proprietors of the soil were, in theory at least, officers of Government, responsible to it for the revenue they collected, and, accordingly, they were not entitled to any remission. But, when droughts or serious floods occurred, the cultivator did not pay his rent, and there is reason to believe that the native rulers recognized such calamities as a valid excuse for short payments, so that the actual collections always fell short of the full demand. When we first conquered the Province, the Bengal Regulations were extended to it, and the assessment, which under the Marāthās had included a considerable margin for remissions and deductions, became a fixed and invariable debt which the zamīndār had to discharge to the day on pain of losing his estate, in spite of the fact that Orissa is peculiarly liable to suffer from the extremes of drought and flood. The consequences of this attempt to engraft the rigid administration of a permanently settled Province on a country and people wholly unsuited to it were disastrous. Arrears accumulated rapidly, and in 1806

began the system of putting up defaulting estates for sale in Calcutta, a policy which allowed Bengali speculators to buy valuable properties at low prices. Some of the oldest families of Orissa were ruined; one after another their estates were sold up and passed into the hands of Bengali adventurers; and the hardships of the revenue system being increased by repeated droughts, even these failed to pay the revenue, and the collections fell far short of the revenue demands.

Settlement of 1837.

In 1817 the people broke out in what is known as the Khurdā rebellion, and this rising served to bring home to the authorities the deep discontent and real grievances of the Oriyās. In Regulation VII of 1822 Government shortly afterwards proclaimed its intention of concluding a settlement based on a detailed investigation into the circumstances of the Province and a determination of the rights of all parties. Preparations for this settlement were commenced as early as 1830, and it was held to run from 1837, although the proceedings were not finally completed before 1845. The settlement cost upwards of 20 lakhs, and the result was an increase of revenue of only Rs. 34,980 for all three districts. In Balasore it was found that the cultivated area dealt with amounted to 554,000 acres, of which 493,200 acres were assessed. The demand was fixed at Rs. 3,77,290, the incidence of revenue being annas 12-3 per acre.

SETTLEMENT OF 1897.

The settlement thus concluded was made for 30 years and expired in the year 1867, but the great Orissa famine of the year 1865-66 rendered it inadvisable to undertake re-settlement operations when the former settlement was drawing to a close, and that settlement was accordingly prolonged for another thirty years. The history of the rapid recovery of the Province from the horrors of the great famine has subsequently shown that this extreme leniency was scarcely needed, and that a re-settlement might well have been made some twenty-five years ago, to the advantage of Government and without undue harassment of the people. The result of the excessive prolongation of the former settlement was the exclusion of Government for a lengthy period from its fair share of the produce of the soil, and the retention by the landlord classes in Orissa during the same period of profits to which they had no equitable right. During the sixty years of the currency of the settlement of 1837, the district developed in every direction in spite of the disaster of 1866, cultivation extended by 40 per cent., communications were greatly improved, bringing an increase in the volume of trade, and the prices of staple food-crops were trebled, securing largely increased profits to the cultivators.

The last settlement of the Province was a work of great magnitude; the operations extended over a period of 10 years, from the end of 1889 to the end of 1899, and over an area of 5,000 square miles; rents were settled for a million and a half of tenants, and the Government revenue on nearly six and a half thousand estates. In this district the area assessed was 692,200 acres, and the revenue fixed was Rs. 6,29,073, giving an incidence of annas 14-6 per acre. The settled assets were Rs. 11,51,400, the actual percentage of the assets taken as revenue amounting to 55 per cent. The enhancement made in the land revenue was as much as 67 per cent., which appears *primâ facie* very large, but it must be remembered that whereas the zamīndārs received an income of Rs. 1,98,000 at the time of the previous settlement, they now receive an income of Rs. 5,22,300, and that while the revenue has been enhanced by 67 per cent., their income has increased by 163 per cent.

The chief results of the settlement of 1897, as compared with that of 1837, are summarised below:—

YEAR.	Cultivated area in acres.	Assessed area in acres.	Assets in Rs.	Revenue in Rs.	Percentage of revenue to assets.	Incidence of revenue per acre in annas.
1837	554,000	493,200	5,75,600	3,77,290	65	12-3
1897	776,000	692,200	11,51,400	6,29,073	55	14-6

REVENUE-PAYING LANDS.

The preceding account will show that the revenue system of Balasore differs from that of Bengal proper, inasmuch as the settlement for the Government land revenue is not of a fixed and permanent character, but is made for a term of years only, subject to an increased assessment at the end of every fresh period. This system obtains in the greater portion of the district, but a certain number of estates are permanently settled. At the time of the last settlement there were 150 such estates, with an area of 190 square miles and a revenue demand of Rs. 34,835, lying in 8 *parganas* in the north of the district. They were originally contained in Midnapore and borne on the revenue roll of that district, but were transferred to Balasore on the revision of the boundary in 1868.

Permanently-settled estates.

Temporarily-settled estates.

The temporarily-settled estates numbered 1,417 and accounted for an area of 1,499 square miles. The majority are held by the descendants of the *tālukdārs*, rent-collectors, village headmen, holders of resumed *jāgīrs* and the like, who were found, at the

time of the British conquest, to be paying their revenue direct into the Marāthā treasuries, as well as of the holders of the larger revenue-free properties that were resumed and assessed to revenue during the early years of last century. Four of these estates, viz., Ambahatā, Patnā, Mangalpur and Ambo, are old *kilās*. They were held on military tenures subject to the payment of a tribute, and their circumstances differed little from those of the present Tributary States until the British accession, when the Bhuiyās of Mangalpur and Patnā, and the Mangrāj of Ambo placed themselves under the protection of Government with the object of obtaining some security against the oppressions of the Garjāt chiefs. From that time, although assessed with special leniency, these three *kilās* have been held on the same terms as the estates of ordinary zamīndārs. *Kilā* Ambahatā was wrested from the Keonjhar Rājās in the time of the Mughals by the ancestors of one Bikram Singh Bidyādhar. It was resumed by the Marāthās and ceased to be a *kilā* in anything more than name. *Kilā* Patnā has passed from the hands of the former Bhuiyā family, being sold in 1897 under a civil court decree for debt, but the two remaining *kilās* of Mangalpur and Ambo are still in the possession of the old families.

Altogether 19 estates (Khās Mahāls) were owned by Government, the area being 34 square miles and the revenue payable nearly Rs. 40,000. They call for no detailed mention with the exception of *tāluks* Noānand, Bírso and Bichitrāpur. The Noānand estate, which has an area of 16,400 acres, was sold for arrears of revenue in 1818 and was purchased by Government for one rupee; it is now under the management of the Subdivisional Officer of Bhadrakh. Birso, with an area of 1,575 acres, formerly formed part of Noānand and was also purchased by Government for one rupee. The Bichitrāpur estate on the river Subarnarekhā, which has an area of 3,550 acres, consists of lands acquired for the purpose of salt manufacture in the early part of the 19th century under an *istimrāri* lease, *i.e.*, the lands were ceded and the rent fixed in perpetuity. Government has accordingly paid an annual rent of Rs. 799 to the original proprietors since 1809. Government estates.

Previous to the British conquest alienations of land for religious and charitable purposes were very common, the right of creating such tenures being freely exercised by the *pargana* officials and by the village officials, such as *mukaddams* and *sarbarāhkārs*, in villages which had an hereditary village head. The area of such *lākhirāj* lands, *i.e.*, lands which were found at the settlement of 1837 to be held on valid titles and were REVENUE-FREE LANDS.

accordingly confirmed as revenue free, is 170 square miles or 19 per cent. of the temporarily-settled area. The *lākhirāj bahāldārs* or holders of such lands possess a permanent right to hold them free of land revenue and are independent of the zamīndārs, except in so far as they are bound to pay cesses through them.

Debottar. The *lākhirāj* lands are found in nearly every village and consist mainly of *debottar* lands, which cover an area of 94 square miles or more than half the total. These lands were granted in support of Hindu shrines, the deity being legally regarded as the proprietor; and the *sebāits* or trustees of the shrine were generally Brāhmans and Vaishnavas, but included also a small number of Karans, Khandaits and Mālis. The whole income of the lands was originally intended to be devoted to the support of the shrine and to charitable purposes, but owing to various causes, such as the absence of supervision, the decline of religious sentiment and the subdivision of rights among the *sebāits*, the proceeds have in many cases been diverted, and only a small portion of them is now expended on the original purpose for which the land was granted. Some sort of *sebā* or worship however is always carried on; cases in which no portion of the produce of the lands is devoted to the shrine are very rare and occur only when the lands have been transferred by sale or mortgage. If there are several sons who jointly inherit the property, each will take charge of the shrine during a portion of the year and maintain a priest, cook and attendant, offices which may also be combined in a single person. Wealthy *bahāldārs* occasionally supplement the income of the shrine with a fixed annual contribution. On the other hand, the *sebāits* of *amruta manohi* grants, *i.e.*, grants made for the purpose of keeping up the worship of Jagannāth at Purī, are accustomed to pay a merely formal sum to the Jagannāth *mahants*, and use the balance to maintain themselves in comfort and luxury.

Grām-debottar. Among these *debottar* lands may be mentioned the *grām-debottar*, *i.e.*, portions of land which have been set apart from time immemorial in each village, in honour of the *thākurānī* or female tutelary deity of the place. The land so appropriated is usually small in extent, often only a fraction of a *bīgha*. Instead of the daily offering, periodical festivals, and regular ceremonial necessary for an orthodox deity of the Hindu pantheon, offerings once or twice a year, and one or two feast days, are all that seem to be required in the case of the *thākurānī* or village deity. The former is enshrined in a temple while the *thākurānī* is generally located under a tree, and often in the open plain. She takes her name usually from the tree itself or the locality; but in many cases she has no name at all, and the patch of waste

ground forming the *āsthān*, or abiding place of the *thākurānī*, is all that has been set apart, there being no one in charge and no compulsory offering.

Brahmottar. *Brahmottar* lands, *i.e.*, lands granted either to individual Brāhmans or to a body of Brāhmans forming a *sāsan* or Brāhman village and intended for their maintenance, cover an area of 53 square miles. These lands have been alienated to a large extent, and only 83 per cent. of the area is now in the possession of Brāhmans. *Pirottar.* On the other hand, the grants known as *pīrottar*, *i.e.*, land set apart for the maintenance of the shrines of Muhammadan saints (*pīrs*) have rarely been alienated owing to the jealous watch kept over them by the Muhammadan minority. Their present area is 7½ square miles, which is only one-twelfth of the *debottar* area, the reason for this disproportion being that the Muhammadans are far less numerous than the Hindus, and even in the days of Mughal rule the Muhammadan population did not form the dominant class, except in detached villages, more especially in the south of the district.

Khairāt. *Khairāt* lands given in charity (*khairāt*) to Vaishnavas and other poor Hindus are more extensive, accounting for an area of 11½ square miles. Of other such grants the most important are those known as *mahattrān*, *i.e.*, land granted revenue free to certain respectable classes of cultivators, such as Karans and Khandaits, who go by the name of *Khusbās* ryots.

There has been considerable subdivision of these revenue-free properties, and in the 60 years ending with the last settlement the number of proprietors was doubled. It is estimated at 67,000, and the average area of each share is only 1·62 acre and of each holding 2 acres. The number of tenants holding under the *bahāldārs* is 64,400; they are mostly tenants with occupancy rights, and the area held by them is nearly 60,000 acres, the average holding being less than an acre in size.

LAND TENURES.

Proprietors.

In the Marāthā records handed over to the British on the acquisition of the Province, each of the *parganas* was found to be divided into a number of *tāluks* or divisions representing tracts which various officials, viz, *chaudhris*, *wilāyati kānungos*, and the supervising *sadr kānungos*, had in course of time got recorded in their several and individual names, and for the revenue of which they came to be separately responsible; while the holders of *mazkurī tāluks* were *mukaddams* of villages paying revenue into the treasury direct. All these holders of *tāluks*, who were called *tālukdārs*, were allowed to pay their revenue direct into the Government treasury; and in subsequent Regulations and proceedings they were all denominated zamīndārs and proprietors

of the land. Previously, they had been regarded merely as the holders of a hereditary office, with liberty to sell their rights in it only when they were in arrear with the revenue, and to dispose outright of small plots of unassessed waste land. Since 1804, the tendency of legislation and the action of the Civil Courts has been to assimilate this zamīndāri tenure to the English conception of a landed estate. The zamīndārs have been allowed to sell and convey any portion of it in any way they pleased; and the former notion, that they were only a medium between the cultivators and their sovereign for paying the rents into the treasury, has been to a great extent supplanted by the idea that they are the real proprietors and owners of the soil. This has not been effected, however, without great loss to the *mukaddams* or heads of villages, who had originally very much the same rights as the zamīndārs. In many instances they have disappeared altogether, having been ousted by the zamīndārs, or having failed to secure recognition of their rights in the law courts.

There are more than 5 recorded proprietors to each estate, the average size of which is 676 acres; the largest, *Tāluk* Mubārakpur, contains an area of 38,293 acres, and the smallest is less than one acre. The average revenue fixed at the last settlement was Rs. 445; the greater number of the estates pay under Rs. 1,000 per annum, and half of these again pay less than Rs. 300.

Subdivision of estates.

During the sixty years ending in 1897 the number of estates in Balasore increased from 803 to 1,414, a result almost entirely due to partition. Briefly, it may be said that partition caused an increase of 75 per cent. in the number of estates, but a clearer idea of the extent to which subdivision has taken place may be gained from the fact that the number of recorded proprietors increased during the same period from 1,509 to 7,481 or nearly five-fold. As early as 1831 this matter was exciting attention, and in that year Mr. Ricketts, Collector of Balasore, pointed out that there were 1,084 proprietors recorded for 680 estates and that the number of proprietors had almost doubled during the preceding twenty-five years. He added that the principle of inheritance according to Hindu law had not been acknowledged before the British conquest, and that the recognition of the privilege was injurious both to the zamīndārs and Government as tending to pauperize proprietors as a class.

Transfer of estates.

It is not, however, to the Hindu system of inheritance so much as to the transfer of portions of estates that the increase in proprietors is due. It is, in fact, no uncommon thing to find, especially in the south of the district, estates held by 30 or 40 proprietors, most of whom have come in during recent years as

purchasers of small interests. While at the commencement of the century there was but a single proprietor to each estate, in 1840 there were two and at the present date there are more than five. There can be no doubt that the extension of the settlement in 1868 did much to tend to this result by placing at the disposal of proprietors for another thirty years an enormous increment of assets, and thus affording an opportunity for a great and sudden rise in the standard of living. With the Oriyā zamīndār such an opportunity was generally synonymous with a temptation to extravagance and improvidence, and the result has been that they have freely availed themselves of the power of transfer. Striking evidence of this was obtained during the last settlement, when it was ascertained that of the total number of estates 584 or 42 per cent. had passed wholly by inheritance during the previous sixty years; 284 or 20 per cent. had passed partially by inheritance, portions of them having been sold; 432 or 30 per cent. had been transferred by private sale, 38 or 2 per cent. by sale under Civil Court decree, and 76 or 5 per cent. by revenue sale for arrears. The fact that only 584 estates are now found entirely in the hands of the descendants of the last settlement-holders shows the enormous extent to which transfers have taken place. Though it is true that 284 estates still remain partially in possession of the old families, it may be said, putting these two figures together, that transfers have been effected to the extent of almost half the proprietary rights of the district. The subdivision of property has continued since the settlement, and in 1905-06 the number of estates borne on the revenue-roll had risen to 1,636.

Nationality of zamīndārs.

As regards the persons to whom the estates have passed, it was found that Bengalis numbered 885 of the total, as against 174 in 1837, Oriyā Hindus, including naturalized Bengalis, 6,090 as against 1,181, and Muhammadans 505 as against 153. The proportion of Bengalis, therefore, remained stationary, while the Oriyā Hindus advanced at the expense of the Muhammadans. Subdivision of title is quite as common with the latter as with the remaining classes, and their decline is to be ascribed to indebtedness. They are most numerous in the neighbourhood of Bhadrakh, and very many of them have parted with shares in their estates to Oriyā *mahājans*. Oriyā Hindus number no less than 81 per cent. of the total number of recorded sharers, while Bengalis represent 12 per cent. and Muhammadans 7 per cent.

Non-resident landlords.

The resident zamīndārs number 7,210, and the non-resident only 271, the proportion of the latter decreasing from 5 to 4 per cent. during the currency of the settlement of 1837. Most of the non-resident zamīndārs are either inhabitants of Cuttack town or

district, but a few are residents of Midnapore and Calcutta. It was stated in 1853 that one-third of the proprietors resided on their estates. and the proportion is about the same at the present day.

Their castes and professions.

The most important castes represented are Khandaits (28 per cent.), Brāhmans (27 per cent.) and Karans (18 per cent.). These castes include 73 per cent. of the total number of recorded proprietors; and of the remainder 7 per cent. are Musalmāns, 6 per cent. Telis, 5 per cent. Tāmbulis and 4 per cent. Kāyasths. Altogether 44 per cent. of the proprietors are without ostensible professions, and 15 per cent. are zamīndār *mahājans* as compared with 9 per cent. in 1837. About one-third of these are persons who, in addition to being proprietors, have some money-lending business, and the balance are professional *mahājans*, with whom ownership of an estate is subordinate to their business as money-lenders. Both classes are purchasing estates, but the latter most freely. The proportion of cultivators has advanced from 10 to 24 per cent, owing to numerous purchases, generally of petty shares; pleaders and *mukhtārs* are also a largely increasing class. On the other hand, the old revenue official families are declining, the proportion having fallen from 5 to 2 per cent. Among the chief of these are the descendants of the *sadr kānungos* established by the Mughals at Bhadrakh, Soro and Jaleswar; the first are the Mahāsaya family of Kāupur, the second the Mahāsaya family of Kedārpur and the third the Mahāsaya family of Lakshannāth.

TENURE-HOLDERS.

Under the zamīndārs are a number of tenure-holders paying their revenue through the proprietors of the estates within which their lands lie. They are for the most part descendants of village headmen, such as *mukaddams* and *sarbarāhkārs*, or *kharidādārs*, *i.e.*, the purchasers or recipients of proprietary rights in small plots of land alienated by the zamīndārs or *mukaddams*.

Mukaddams.

The *mukaddams* were originally the village headmen, who held nearly the same position and exercised the same rights in their respective villages as the *pargana* officials. Their office of rent-collecting and revenue administration was hereditary, and they had also the privilege of selling outright small portions of unassessed waste land within the limits of the village. In some cases they paid the revenue direct into the treasury, and many of them thus attained the position of zamīndārs and were recognized as such when the first British settlements of the district were effected. Of the remainder, from whom engagements were taken as tenure-holders, many were dispossessed during the early days of British administration, being compelled by the zamīndārs to abrogate their hereditary rights and enter into farming leases for short terms of years. There are now 112 *mukaddami* tenures

with a total area of 51 square miles, the average area being 291 acres. They are contained in 16 estates, situated chiefly in *parganas* Bānchās Ogar and Dhāmnagar.

Sarbarāhkārs. While the *mukaddams* were the successors of the village headmen or *pradhāns* of the Hindu rule, who had often actually founded and developed their villages and exercised over them a hereditary and proprietary right, the *sarbarāhkārs* were originally mere collecting agents, either servants or farmers, installed by the *tālukdārs*. After a long course of possession they gained an admitted right of collection, and after further lapse of time the right often became hereditary. The essence of the distinction was therefore that the *mukaddam's* right originated independently, whereas the *sarbarāhkār* acquired a right carved out of that of the *tālukdār*. Many of these, from being the zamīndārs' subordinate rent-collectors, gradually acquired separate tenures, just as their masters, having been originally rent-collectors of a higher grade, acquired the substantial interest of zamīndārs. Some *sarbarāhkārs* were originally mere servants of the zamīndārs, who collected their rents from the cultivators and enjoyed *jāgīrs*; others obtained possession of their villages as farmers only, but gradually obtained a prescriptive right to the tenure as it descended from one generation to another. There are now 731 *sarbarāhkāri* tenures with an area of 96 square miles, the average area being 85 acres. They are comprised in 29 estates chiefly situated in *parganas* Bānchās Ogar, Senaut and Soso.

Kharidādārs. The third class of tenure-holders consists of *kharidādārs* or purchasers of waste lands. In the time of the Hindu, Mughal and Marāthā rulers, the revenue-collecting officials, viz., the *mukaddams* in their respective villages, and the *tālukdārs* in the *parganas* or portions of *parganas* which they managed, had the right of selling pieces of unassessed waste land. Land thus sold was called *kharidā* or purchased, and was generally appropriated with the object of forming a garden or plantation, or was used for building purposes to create a new village. Though, in theory, these lands were waste, in reality cultivated lands were sometimes fraudulently disposed of in this manner. Among the *kharidādārs* may be included *pursethis*, who were originally the headmen of *patnas*, *i.e.*, villages composed of land which had been purchased from the *tālukdārs*, by virtue of the ancient privilege which the *pargana* officials enjoyed of selling waste unassessed land.

Subdivision of tenures. Transfers of tenures are common, and as an instance of this it may be mentioned that in one estate alone 289 out of 453 tenures are held by purchasers. Subdivision of interests has also

been carried on to a very great extent, and in one *tâluk* the number of shares increased from 64 to 453 in the 60 years ending with the last settlement, many of the *sarbarāhkārs* paying rents of a few annas only. During the same period the number of tenures in the whole district increased from 100 to 493 or by 400 per cent., and the number of recorded sharers from 154 to 829 or by 450 per cent. This was due partly to the partition of the estates in which the tenures existed, and partly to subdivision at inheritance, but generally to sale. In *pargana* Bānchās Ogar and the northern *parganas* actual subdivision of tenures has taken place to an inconsiderable extent, though the recorded sharers have greatly increased.

TENANTS. No less than 84 per cent. of the holdings in the district are in the possession of occupancy ryots, and 3 per cent. are held by non-occupancy ryots, the area held by each class being 83 and 2 per cent. respectively. The average area of each holding is very small, being only 1·57 acre in the case of the former and 1·17 acre in the case of the latter.

***Thāni* ryots.** The most numerous and important tenants are *thāni* and *pāhi* ryots. The term *thāni* is a corruption of *sthāni* or *sthānīya*, meaning local or resident, and was originally applied to the resident ryots of the village, who had cultivated its lands from time immemorial; its use is now restricted to the successors in interest of the resident ryots who were recorded as such in the first regular settlement of the district. The *thāni* ryots are in enjoyment of a hereditary right of occupancy, and their status is the creature of custom that has been in operation for many generations. These tenancies, as the holdings of resident tenants, naturally embraced all the best lands of the villages, and the customary rights of the resident tenants included many important privileges. They had the right to take up waste land at privileged rates; they had rights of pasturage and fuel; their occupancy was hereditary; the rent was fixed; and they could be disturbed only on failure to pay it. The *thāni* ryots were consequently the most substantial section of the village community and took the most prominent position in village affairs. They still retain a preferential right to the cultivation of *pāhi*, *bāziāfti* and *bahāl* lands; they obtain fuel at a cheaper rate; and they exercise, with regard to cutting trees and taking their fruit, rights which, though vague and ill-defined, are superior to those of the *pāhi* ryots. Considerable prestige still attaches to the status, and they are very unwilling to surrender their lands even when the rent is high, and the soil appears to have been damaged by sand beyond all hope of recovery.

Beyond the fixity of rent for 30 years, there is, however, now nothing to differentiate their status from that of *pāhi* ryots. Ryots of the latter class have now received the *pattās* which have been hitherto the distinguishing mark of the *thāni* ryots, and the occupancy right of both classes is now selling at almost level rates. Yet social distinctions are tenacious of existence in this country, and it may be long before the *thāni* ryots cease to have the loudest voice in village politics and before the zamīndārs cease to accord them the privilege of being the first to pay the rent at each *kist* that precedes the *lātbandi*.

The *thāni* holdings have been freely transferred by sale and mortgage, and their area has decreased very largely, falling during the currency of the last settlement from 110,100 to 45,900 acres; the average size of the holding is now 1·80 acre.

Pāhi ryots.

The *pāhi* ryots were originally the non-resident ryots of the villages, who, according to ancient custom, were mere tenants-at-will, until Act X of 1859 and the Bengal Tenancy Act conferred occupancy rights upon them. But this was unknown in many parts till the commencement of the last settlement, the word *pāhia* continued to be a term of reproach among the ryots indicative of an absence of rights, and it was only the settlement proceedings of 1897 which brought home to these tenants the nature of their rights. As a matter of fact, the *pāhi* tenant of 60 years ago has ceased to be non-resident. He has settled down on his cultivation, and, under the operation of the Bengal Tenancy Act, has become an occupancy tenant with all the rights and privileges which that Act has given. The name of the *pāhi* tenant has practically disappeared from the settlement records, as it is now held to include all the tenants included under the Bengal Tenancy Act as settled, the holdings of *thāni* ryots and all mixed holdings (*thāni-pāhi*) being excluded. The occupancy tenants hold an area of 435,200 acres, the number of their holdings being 234,700 and their average size 1·91 acre; there are only 10,000 non-occupancy holdings with a total area of 13,400 acres or 1·3 acre per holding.

Kharidādārs.

The holdings of *kharidādār* tenants, *i.e.*, *kharidādārs* who have not been recognized as proprietary tenure-holders, number 3,400, and the area under this tenancy is 15,100 acres, the average size of the holding being 4·4 acres

Bāziāftidārs.

The tenants known as *bāziāftidārs* include 2 classes, the *nisfi bāziāftidārs*, or holders of resumed rent-free lands assessed for the term of the settlement of 1837 at half rates, and the *kāmil bāziāftidārs*, or holders of resumed rent-free lands assessed at that settlement at full rates. The former have 45,800 holdings

with an area of 77,200 acres or 1·7 acre per holding, a result due to the excessive subdivision which has gone on. The latter have 16,100 holdings with an area of 26,500 acres or 1·6 acre per holding. At the present day the *bāziāftidārs* represent the bulk of Oriyā middle class society, and especially the Brāhmans. The latter number 120,000 or about 20,000 families, and when it is remembered that there are over 50,000 *lahāl* properties and over 60,000 *bāziāfti* holdings in the district, the majority of both held by Brāhmans, it is seen how close is their connection with lands of this description.

Bāziāftidārs, as a class, are in poor circumstances, as they have a number of dependents and their lands have been excessively subdivided; but there are many *sāsan* villages where the whole body of *bāziāftidārs* is well-to-do. *Bāziāftidārs*, in common with Brāhmans generally, often act as guides to the peasantry in the intricacies of the law, as well as in other matters. The zamīndār's *āmlā*, the petition writer, the law-tout, the *mukhtār* and pleader are generally recruited from this class. They have thus a certain *savoir faire*, which, added to their caste and social status, ensures them a position of some importance among the peasantry.

Chāndinā tenants.

The *chāndinā* ryots are tenants occupying homestead land, who generally possess no cultivated land in the village. There are now 12,400 holdings of this class covering 3,300 acres or nearly one-third of an acre each.

Jāgir lands.

The last important class of tenants consists of holders of service and other *jāgīrs*, who hold their lands rent-free, either in consideration of services to be rendered, or as rewards for services in the past. Among these are 7,200 acres held by *chaukīdārs* or village police, and 1,400 acres held by village accountants or *patwārīs*. There are 4,600 acres held by *pāiks* and Khandaits, who are interesting survivals of the old rural militia of Orissa. They are most frequent in the tracts along the borders of the Tributary States and in the north of the district, where they were granted service lands for the protection of the country, partly from inroads by the Garhjāt chiefs and partly from the ravages of wild animals. *Chākrān jāgīrs*, which account for 2,600 acres, are lands held by the village washermen, barbers, blacksmiths and carpenters, and in some cases by the village drummers and boatmen. Such grants were made for the benefit of whice village community, and as an inducement to intending settlers. *pāhi* ryoamall or newly-established village, where the number of and they its was too small to offer a hope of sufficient remuneration when the renter or blacksmith, these were induced by grants of by sand beyond a land rent-free to take up their residence and thus

complete the formation of the village community. It was never intended, however, that these *jāgīrdārs* should supply the needs of the villagers without payment and merely as a return for the grant of land, nor has it ever been the case that they have done so; accordingly, they receive periodical payments from the cultivators, in cash or in kind, in addition to their *jāgirs*.

UNDER-TENANTS.

The under-tenants are divided into four classes: (1) ryots of tenure-holders with rights of occupancy; (2) ryots of tenure-holders with non-occupancy rights; (3) under-ryots with rights of occupancy; and (4) under-ryots liable to eviction for failure to pay rent or at the end of the year after service of due notice. From the figures obtained at the last settlement it appears that within the revenue-paying estates there are 100,000 under-tenants holding 65,000 acres. The proportion of the area held by under-ryots to the total area of ryoti holdings (excluding *bāziāfti*) is about 3 per cent., and it is estimated that tenure-holders sublet 62 per cent. of their lands to under-ryots. Nearly all the under-ryots, however, have other lands of their own held as *pāhi* or *thāni* either in the same or a neighbouring village. Respectable ryots take up and cultivate lands held by Brāhmans or small patches required for sugarcane and tobacco, which the ryot himself cannot or will not grow; and other under-ryots are low caste tenants paying produce rents, with a position differing but little from that of hired servants. Similarly, the ryots holding under tenure-holders may be divided into respectable ryots cultivating for their own convenience and low caste men paying produce rents, though the former largely predominate.

RELATIONS OF LANDLORDS AND TENANTS.

Balasore is a district of small estates, and the proverbial harshness of petty landlords is intensified by the perplexing way in which their lands are split up. An estate generally consists of a village in one *pargana*, perhaps two in another, and four or five in as many more, all distant from each other. But worse than these ordinary estates are the 'separate collection lands' (*tahsīl alāhidā*). Such an estate, although forming a fiscal entity, and bearing but one number in the district rent-roll, often consists of 60 or 70 small parcels of land, scattered over the whole district, with two or three acres in one village, and one or two acres in another 30 miles off. In addition to these elements of confusion, there are more than 54,000 revenue-free properties, which average only 2 acres a piece. Such grants, even though they may not exceed 10 acres in extent, will often be found in 10 different plots in as many different villages. The proprietors have also a passion for having their land parcelled out by the process of law known as *batwārā*;

as already mentioned there are more than 5 proprietors to each estate, and it is not uncommon to find some estates held by 30 or 40 proprietors.

The result of these conditions is that the relations between landlords and tenants are not very satisfactory. The land-holder is necessarily at a distance from the greater part of his scattered land, and takes but little interest in the husbandmen. Instead of having a compact tenantry living together, who could be dealt with in a corporate spirit, he has tenants scattered over 40 or 50 distant villages, with whom his only connection is the periodical demand for rent. Each proprietor is eager to get every scrap of his land under tillage; nor can he afford, like the territorial magnates of Bengal, to leave large tracts for pasturage,—a parsimony that makes itself visible in the miserable condition of the cattle. His poverty further compels him to rack-rent tenants not protected by a right of occupancy. A hungry landlord cannot afford to be generous. The husbandmen on their side have to be content with small holdings. In order to get a large holding, they would have to take land under two or three proprietors, and would thus be exposed to the accumulated tyranny of many masters; while if they wished to have a large holding under one landlord, they would have to take fields in widely distant villages, and would thus lose time in going to and fro. Large farms are, therefore, unknown, and the average area held by each tenant is less than $5\frac{1}{2}$ acres. This small area is comprised within $3\frac{2}{3}$ different holdings; and at the last settlement it was found that in a number of representative villages no less than 73 per cent. of the holdings were under 2 acres in size, only 7 per cent. being over 5 acres and 3 per cent. over 10 acres in area.

CHAPTER XII.

GENERAL ADMINISTRATION.

ADMINISTRATIVE CHARGES AND STAFF.

THE administration of the district is in charge of the Collector under the Commissioner of the Orissa Division, and for general administrative purposes it is divided into two subdivisions with headquarters at Balasore and Bhadrakh. The headquarters subdivision is under the direct supervision of the Collector, who is assisted by a staff of three Deputy Collectors with occasionally a Sub-Deputy Collector; while the Bhadrakh subdivision is in charge of a Subdivisional Officer, sometimes a member of the Indian Civil Service, who exercises the powers of a Deputy Collector in revenue matters, and is assisted by a Sub-Deputy Collector. He does not, however, exercise original jurisdiction in any revenue matters except rent suits, all other revenue matters being dealt with by the staff at Balasore. The latter place is also the headquarters of the Executive Engineer in charge of the Balasore Public Works Division, and Chāndbāli is the headquarters of the Port Officer of the Cuttack and Balasore ports.

REVENUE.

The revenue of the district, under the main heads, increased from Rs. 6,69,000 in 1880-81, when the income-tax had not been imposed, to Rs. 7,53,000 in 1890-91 and to Rs. 10,98,000 in 1900-01. In 1905-06 it amounted to Rs. 11,95,000, of which Rs. 6,62,000 were derived from land revenue, Rs. 2,89,000 from excise, Rs. 1,45,000 from stamps, Rs. 81,000 from cesses and Rs. 18,000 from income-tax.

Land revenue.

The collections of land revenue increased from Rs. 4,11,000 in 1880-81 to Rs. 4,21,000 in 1890-91 and to Rs. 6,25,000 in 1900-01. In 1905-06 they amounted to Rs. 6,62,000, collected from 1,636 estates. Of these, 1,470 estates with a demand of Rs. 5,83,500 are temporarily settled, and 152 estates with a demand of Rs. 41,750 are permanently settled, while there are 14 estates with a demand of Rs. 36,000 held direct by Government.

Excise.

The next most important source of revenue is excise, the receipts from which increased from Rs. 2,21,000 in 1895-96 to

Rs. 2,89,000 in 1905-06. By far the greater part of this sum was obtained from the sale of opium, which realized 2½ lakhs or 86 per cent. of the total excise revenue. The people have always been greatly addicted to the use of the drug, and an early account says that "the quantity of opium consumed by some is incredibly large; many a poor wretch beggars his family to gratify this pernicious vice. They will go to any extremes to obtain it, either in the way of petty theft or daring burglary." At the present day, the consumption of opium is greater than in any other Bengal district; the lower classes especially regard it as a preventive of chills and fever, and men, women and children alike look on it as an item of their daily food. There is one shop for the sale of the drug and its preparations to every 14,877 persons, and the amount realized from duty and license fees is Rs. 2,342 for every 10,000 of the population, as compared with the average of Rs. 442 for the whole Province. After opium, the largest receipts are obtained from the duty and license fees levied on *gānja*, *i. e.*, the unimpregnated dried flowering tops of the cultivated female hemp plant (*Cannabis indica*), the amount thus realized being Rs. 22,500 in 1905-06. The total incidence of the revenue accruing from hemp drugs is only Rs. 210 for every 10,000, and the number of shops licensed to sell by retail is one to every 36,939 persons.

The manufacture and sale of country spirit are carried on under what is known as the contract distillery system, which was introduced in 1905. Under this system the local manufacture of country spirit has been absolutely prohibited, and a contract has been made with the Aska Distillery in Ganjām for the supply of country spirit. The contractors are forbidden to hold any retail licenses for the sale of the spirit, but are allowed the free use of distillery and depôt buildings for the storage of liquors. The spirit is brought from the Aska Distillery to the various depôts, and is there blended and reduced to certain fixed strengths, at which alone it may be supplied to retail vendors and sold by the latter to consumers. In Balasore the liquor is sold at 10° U. P., as the opium vice is notoriously prevalent and weaker liquor has very little chance of success. The receipts from license fees and duty on this spirit are far less than in any other Bengal district, amounting in 1905-06 to only Rs. 12,000, while the sale of the country fermented liquor known as *tāri* brought in only Rs. 2,000. The fact is that the Oriyā is far from being a hard drinker, and the demand for liquor is so slight that it is found sufficient to have one retail shop for every 71,413 persons; the annual consumption of country spirit is not more

than 3 proof gallons per 1,000, and the receipts from spirits and fermented liquor amount only to Rs. 145 per 10,000 of the population as compared with Rs. 2,000 for the whole of Bengal.

The revenue derived from the sale of stamps was Rs. 79,500 in 1895-96, and averaged Rs. 94,000 per annum in the quinquennium ending in 1899-1900. During the five years ending in 1904-05 the annual receipts averaged Rs. 1,22,000, and in 1905-06 they were Rs. 1,45,000. The revenue from this source has thus nearly doubled itself in the last ten years. The increase is due mainly to the growth in the number of rent and civil suits, which is reflected in the sale of court-fee stamps realizing Rs. 1,06,500 in 1905-06, as compared with Rs. 58,000 in 1895-96. There has been a similar increase in the receipts from non-judicial stamps, which rose during the same period from Rs. 17,700 to Rs. 30,500 in consequence of the increase in the number of deeds of sale and mortgage. Stamps.

Road and public works cesses are, as usual, levied at the maximum rate of one anna in the rupee. The current demand is Rs. 80,000, of which the greater part (Rs. 67,000) is due from 2,291 revenue-paying estates, while Rs. 13,000 are payable by 16,552 revenue-free estates. The number of recorded shareholders of estates is 35,700. There are 34,983 tenures assessed to cesses with 52,441 share-holders; and the number of tenures is thus nearly double that of estates. The total demand of cesses is equal to nearly one-eighth of the demand of land revenue (Rs. 6,61,000). Cesses.

In 1895-96 the income-tax yielded Rs. 15,000 paid by 872 assessees, and in 1901-02 the amount derived from the tax had increased to Rs. 16,700 and the number of assessees to 928. At that time the minimum income assessable was Rs. 500, but this was raised to Rs. 1,000 in 1903, thereby affording relief to a large number of petty traders, money-lenders and clerks. The number of assessees has consequently fallen off, and in 1905-06 the tax brought in Rs. 17,600 paid by 392 assessees. In spite, therefore, of the decrease in the number of assessees, due to the exemption from taxation of persons having incomes below Rs. 1,000, the collections have increased, owing to the growth of the income of merchants and dealers in food grains which has followed the opening of the railway. Income-tax.

There are 4 offices for the registration of assurances under Act III of 1877, one at the headquarters station and the others at Bhadrakh, Dhâmnagar and Jaleswar. At Balasore the Special Sub-Registrar deals, as usual, with the documents presented there and assists the District Magistrate, who is *ex-officio* District Registration.

Registrar, in supervising the proceedings of the Rural Sub-Registrars in charge of the other registration offices. In the five years 1895-99 the average number of documents registered annually was 9,631; in the next quinquennium (1900-04) it was 16,981; and in 1905 the number rose to 17,484, as shown in the marginal statement, which gives the salient statistics for that year. This remarkable increase is chiefly attributable to the recent settlement, which has put into the hands of every ryot a record clearly defining the position and legal status of his holding. With the facilities for transfer which such a record has placed in his possession, the ryot naturally has resorted more largely to transfer, though the settlement did not confer any new right of transfer. The validity of such transfers still depends upon the consent of the zamīndār, but this is usually given on payment of a bonus of 25 per cent. of the consideration. This restricted right of transfer is fast hardening into a custom, but this is not a matter for anxiety, as the purchasers usually belong to the same class as the sellers.

Name.	Documents registered.	eceipts.	Expenditure.
		Rs.	Rs.
Balasore ...	6,978	6,259	4,765
Bhadrakh ...	4,711	4,001	2,085
Dhāmnagar	2,033	1,703	1,390
Jaleswar ...	3,762	2,572	1,598
Total ...	17,484	14,535	9,838

With the increase in the number of documents registered, there has been a corresponding increase in the receipts and a considerable surplus over the expenditure. The average annual receipts during the quinquennium 1895-99 were Rs. 9,300 and the expenditure was Rs. 6,600; in the 5 years ending in 1904 the average was Rs. 14,250 and Rs. 9,100 respectively; and as shown above, the receipts were Rs. 14,535 and the expenditure Rs. 9,838 in 1905.

ADMINISTRATION OF JUSTICE.

Civil Justice.

The judicial staff entertained for the administration of civil justice consists of a Munsif stationed at Balasore and another Munsif at Bhadrakh, who are subordinate to the District and Sessions Judge; the latter is Judge of Cuttack and Purī and has jurisdiction in this district also. In recent years, there has been a considerable increase in the number of civil suits instituted, owing to the recent settlement, the opening of the railway, the general growth of trade, and the consequent development of business relations; and a Munsifi was accordingly established at Bhadrakh in 1900. The increase in the number of rent suits, in

particular, has been very remarkable, amounting to over 100 per cent. in the 5 years ending in 1904. This is attributed chiefly to the fact that the land revenue demand was enhanced at the recent settlement and the zamīndārs cannot now afford to allow large arrears to remain outstanding, as they were accustomed to do when they enjoyed larger profits. Also the settlement records have given increased facilities to the zamīndārs to prove the area and the annual rental of their tenants' holdings, which were formerly subjects of dispute that many zamīndārs shrunk from bringing before the Courts, as they had no thoroughly reliable records of their own. The issue is now practically confined to the amount of the arrears, and the result is that the majority of suits are uncontested.

There is also another reason why the landlords have resorted more largely to civil suits since the settlement. Formerly the poorer *pāhi* or non-resident ryot was a mere tenant-at-will, who was summarily evicted if he fell into arrears with his rent, and any man willing to pay the balance of rent was installed in his place. Armed with the record of rights, the poorest tenant can now successfully resist this form of tyranny, and the results of many criminal cases have taught the landlord that a suit in the Revenue Court is a much safer means of realizing an arrear of rent than forcible dispossession of the defaulter or illegal distraint of his crop. The increase of rent suits is, at least to this extent, a healthy sign of the development of tenant right, and the fact that this increase has been accompanied by a diminution in the proportion of contested cases shows that there is yet no tendency on the part of the tenant to throw designed obstacles in the way of the landlord.

Criminal Justice.

Criminal justice is administered by the District Judge, who is also Sessions Judge, the District Magistrate, and the various Deputy and Sub-Deputy Magistrates at the headquarters and subdivisional stations. The sanctioned staff at Balasore consists, in addition to the District Magistrate, of 2 Deputy Magistrates of the first class and one Deputy Magistrate of the second or third class. Besides these officers, a Sub-Deputy Magistrate with third class powers is sometimes posted to the head-quarters station. The Subdivisional Officer of Bhadrakh is almost invariably a Magistrate of the first class, and is generally assisted by a Sub-Deputy Magistrate vested with second or third class powers. In addition to the stipendiary Magistrates, there are benches of Honorary Magistrates at Balasore, Bhadrakh and Chāndbāli, exercising second class powers and composed of 11, 9 and 6 members respectively. One or more of the Honorary Magistrates

at Balasore may sit with any salaried or Honorary Magistrate appointed by the District Magistrate, and thus form a bench for the trial of offences committed in the headquarters subdivision. The Port Officer has also the power of a shipping master under Act I of 1852 and has been vested with the powers of a Magistrate of the second class. The District Magistrate is *ex-officio* Assistant to the Superintendent of the Orissa Tributary Mahāls and has the powers of a Sessions Judge in Nīlgiri, Mayūrbhanj and Keonjhar.

Crime. The Oriyās are generally a law-abiding people. Organized crime by professional criminals is almost unknown and has hitherto been confined to occasional drugging and robbing of pilgrims on the Jagannāth road and to an occasional dacoity. The country has now been opened up by the railway, and it is feared that the peace which it has hitherto enjoyed may be disturbed by foreign criminals. Recently also the settlement had a disturbing influence upon the relations of landlords and tenants and upon the economic condition of the country generally; while high prices and the influx of foreigners, as well as the introduction of railway communication, are causes which must have had some effect upon criminal statistics. The Province has now recovered from its temporary *bouleversement*, and is settling down into normal conditions. But it is not to be expected that Orissa will ever again be so immune from crime as it was in its days of peaceful isolation.

POLICE. For police purposes the district is divided into 9 thānas or police circles, viz., Balasore, Bāliāpāl, Bastā, Jaleswar and Soro in the headquarters subdivision; and Bhadrakh, Bāsudebpur, Chāndbāli and Dhāmnagar in the Bhadrakh subdivision. There are also 11 independent outposts, viz., in the headquarters subdivision, Remunā under the Bālasore thāna, Bhogrāi and Panchpallī under Bāliāpāl, Rājghāt and Singlā, under Bastā, Nāmpo under Jaleswar, and Anantapur, Khairā and Similiā under Soro; and in the Bhadrakh subdivision Bant under Bhadrakh and Akshuāpadā under Dhāmnagar. There are thus 20 centres for the investigation of crime. The regular police force consisted in 1905 of the District Superintendent of Police, 4 Inspectors, 30 Sub-Inspectors, 29 Head Constables and 330 constables, and there was one policeman to every 5·2 square miles and to every 2,718 of the population. In Balasore town there is a small body of town police consisting of 2 Head Constables, 4 constables, 4 *dafadārs* and 26 town *chaukīdārs*. The railway police force includes 2 Head Constables and 5 constables. The rural police force is composed of 1,549 *chaukīdārs* and 140 *dafadārs*, and there is one *chaukīdār* to every 691 inhabitants. For the administration of the village police system, the district is divided into 140 unions (79 in

the headquarters and 61 in the Bhadrakh subdivision) with an average of 11 *chaukīdārs* each ; the incidence of *chaukīdāri* tax is anna 1-4 per head, and the *chaukīdārs* receive a salary of Rs. 4 a month.

JAILS. There is a second class district jail at Balasore and a subsidiary jail at Bhadrakh, which has accommodation for 14 prisoners; it is merely a lock-up, all but short-term prisoners being sent to the district jail at Balasore. The latter has accommodation for 155 prisoners, viz., for 105 male convicts, 9 female convicts and 17 under-trial prisoners, while there are cells for 4 prisoners and a hospital for 20 patients. The industries carried on in the jail are oil-pressing, weaving of coarse cloth, carpet making, cane and bamboo work and the manufacture of coir fibre; coco-nut husks being easily obtainable, coir pounding is the chief industry.

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

THE DISTRICT BOARD.

OUTSIDE the municipality of Balasore the administration of local affairs rests with the District Board assisted by the Local Boards constituted for each subdivision and by the Union Committees mentioned below. The District Board consists of 16 members, of whom five are nominated by Government and eight are elected, while three are *ex-officio* members. Its average annual income during the 10 years ending in 1901-02 was Rs. 78,000, of which Rs. 33,000 were derived from Provincial rates, and the average annual expenditure was Rs. 81,000, of which Rs. 38,000 were spent on civil works, Rs. 27,000 on education and Rs. 4,000 on medical relief. In 1905-06 its income was Rs. 1,03,000 (excluding an opening balance of Rs. 21,000), the principal receipts being Rs. 39,000 derived from rates, Rs. 28,000 contributed by Government and Rs. 20,700 obtained from civil works. Here, as elsewhere, the Provincial rates form the chief source of income, but the total incidence of taxation is light, being only 1 anna 10 pies per head of the population. The expenditure in the same year was Rs. 90,000, of which Rs. 38,500 were spent on civil works, Rs. 34,650 on education and Rs. 6,200 on medical relief.

The District Board maintains 307 miles of road, of which 40 miles are metalled and 267 miles are unmetalled, besides a number of village roads with a length of 187 miles; the expenditure on maintaining these roads in 1905-06 was Rs. 122, Rs. 18 and Rs. 16 per mile respectively. It also keeps up 77 pounds, under the control of a Pound and Ferry Inspector, which bring in an income of Rs. 5,000. Its educational expenditure is devoted to maintaining 2 Middle schools and to aiding 18 schools of the same class, 65 Upper Primary schools, 866 Lower Primary schools, and 9 other schools, including 5 schools for the education of children of aboriginal descent. It also maintains 4 dispensaries and aids 2 others, and recently an itinerant Civil Hospital Assistant has been appointed, as an experimental measure, to visit the markets in the Government estates in the Bhadrakh subdivision and afford

medical relief to the poorer classes attending them. Altogether 6·4 per cent. of the ordinary income of the Board is expended on medical relief and sanitation. It also maintains a veterinary dispensary at Balasore, and, when necessary, deputes itinerant Veterinary Assistants to deal with outbreaks of epidemic disease among cattle in the interior.

It is reported that the District Board is a most useful institution which works very satisfactorily. It is said that it represents the best and most educated classes of the district and that influential gentlemen of high standing are anxious to belong to it.

LOCAL BOARDS. Local Boards have been constituted for the headquarters and Bhadrakh subdivisions. The system of election which obtains in some parts of Bengal has not been introduced, and the members are nominated by Government. The Balasore Local Board consists of 12 members, of whom ten are nominated and two are *ex-officio* members, and the Bhadrakh Local Board has 11 members, all of whom are nominated. The functions of these bodies are unimportant, consisting mainly of the administration of village roads; the Balasore Local Board, in particular, is said to have very little to do, and is chiefly useful as a reserve from which to fill up vacancies in the District Board.

UNION COMMITTEES. There are 5 Union Committees, viz., Berhampur, Bhadrakh, Jaleswar, Remunā and Soro, all established in 1896. They each have an area of 10 square miles and a population varying from 10,273 to 10,843. They are practically extinct and exist only in name; in the last annual report it is said—"No work was done by any of the Committees during the year. They were given some work in previous years, but the Committees were found to be utterly indifferent and nothing was done."

MUNICIPALITIES. The Balasore Municipality is the only municipality in the district. It was established in 1877, and its affairs are administered by a Municipal Board consisting of 18 members, of whom five are nominated and twelve are elected, while one is an *ex-officio* member. The area within municipal limits is 5 square miles, and the number of rate-payers is 3,350 or 15·9 per cent. of the population. The average annual income for the decade ending in 1901-02 was Rs. 18,000. In 1905-06 the income was Rs. 21,800, the main source of income being a tax on persons (or property tax), levied according to the circumstances and property of the assessees, which brought in Rs. 10,000. There was also a conservancy rate, levied according to the valuation of holdings at 6 pies per rupee, which realized Rs. 2,000; the same amount was obtained from a tax on animals and vehicles, while a tax on houses and lands brought in Rs. 1,300. The total income from municipal rates

and taxes was Rs. 15,850, and the incidence of taxation was only 12 annas per head of the population. The expenditure in the same year was Rs. 19,500, of which Rs. 5,500 or 28 per cent. were spent on conservancy, and Rs. 5,000 or 26·6 per cent. on public works. Besides this, Rs. 4,500 or 23·3 per cent. were expended on medical relief, a higher percentage than in any other municipality in Orissa except Purī.

CHAPTER XIV.

EDUCATION.

NOTHING perhaps illustrates the progress of Orissa under British rule more clearly than the history of the spread of education among its people. The contrast between the low estimation in which early observers held their intellectual capacities and the standard which they have now reached is very striking. Orissa was described as the Bœotia of India, and its people as equally ignorant and stupid; it was cited as a proof of the poverty of their qualifications that the principal official posts had to be filled by foreigners; and the reason assigned for this was that it was impossible to find Oriyās of sufficient ability for positions of responsibility and trust. When we first acquired the Province in 1803, there was scarcely a single native of Orissa in Government employ. The language of the courts and public offices was Persian, and it was not till 1805 that orders were passed that in all written communications with the natives of the Province the subject should be written in Oriyā as well as in Persian. This order necessitated the employment of Oriyā *muharrirs*, who, though skilful enough with their iron pen and bundle of palm-leaves, were almost helpless when required to write on paper with an ordinary pen. They are said to have been slow in acquiring any facility in this method of writing, ignorant of business in general, and especially of the new English method of revenue accounts. All the best ministerial appointments were consequently in the hands of Bengali clerks, who, attracted by the high pay that had to be offered to procure the requisite standard of efficiency, left their homes in Bengal, and bringing their families with them, settled in the Province and became naturalized Oriyās. EARLY HISTORY OF EDUCATION.

The backwardness of education in Orissa during the first half century of British rule has been graphically described by Sir William Hunter. "Government," he writes, "not less than the missionaries, long found itself baffled by the obstinate orthodoxy of Orissa. Until 1838 no schools worthy of the name existed

I am indebted to Babu Divya Sinha Misra, B. A., Deputy Inspector of Schools, Balasore, for assistance in preparing this chapter.

except in the two or three little bright spots within the circle of missionary influence. Throughout the length and breadth of the Province, with its population of 2½ million of souls, all was darkness and superstition. Here and there, indeed, a *pandit* taught a few lads Sanskrit in a corner of some rich landholder's mansion; and the larger villages had a sort of hedge-school, where half a dozen boys squatted with the master on the ground, forming the alphabet in the dust, and repeating the multiplication table in a parrot-like sing-song. Any one who could write a sentence or two on a palm leaf passed for a man of letters. In 1838 Government entered the field, and opened an English and a Sanskrit school at Purī. But these institutions proved altogether unable to make head against the tide of ignorance and bigotry, and presently sunk beneath the flood. In 1841 we opened a higher class English school at Cuttack, which after a long series of conflicts and discouragements still survives as the principal seat of education in the Province. During Lord Hardinge's administration two vernacular schools were set agoing in 1845; another one in 1848; and in 1853 an English school was founded in Balasore, while the one at Purī was resuscitated. In 1854 arrived the famous Educational Despatch which was to bring western enlightenment home to the eastern races. Yet for several years afterwards, the increase of schools throughout vast Provinces like Orissa has still to be counted by units. In three great Government estates (Khurdā, Bānki and Angul) we managed between 1855 and 1859 to set on foot 19 elementary schools; but in the latter year the total number for all Orissa, with close on 3 millions of people, amounted to only 29. The truth is, the whole population was against us. Such little success as our schools obtained they owed, not to the Oriyās themselves, but to the Bengali families whom our Courts and public offices brought into the Province. Thus, of the 58 Orissa students who up to 1868 reached even the moderate standard exacted by the Calcutta University at its Entrance Examinations, only 10 were native Oriyās, while 48 belonged to immigrant families."

The Brāhmans had hitherto held the monopoly of education and kept it strictly in their own hands; and caste prejudice and religious superstition were the great obstacles in the way of progress. The Government schools were looked upon as infidel inventions; and even as late as 1860, a learned Oriyā, on being appointed to the orthodox post of Sanskrit teacher in the Purī school, was excluded for a year or two from the Brahmanical orders, and stormy discussions took place as to whether he should not be formally expelled from his caste. In spite, however, of such

opposition, State education slowly, but surely, made its way in Orissa. In 1848-49 there were but 9 schools, with a total attendance of 279 pupils, out of a population of 3 million souls; but during the next ten years the number of schools increased to 29, and of pupils to 1,046; while at the close of the third decennial period, *i.e.*, in 1868-69, they numbered 63 schools with 4,043 pupils.

Until 1869, however, no machinery existed in Orissa for training teachers, and the lack of qualified instructors was one of the greatest difficulties experienced in establishing and maintaining schools. In that year, Government opened a Normal school in Cuttack town, at which young men were instructed with the object of qualifying them to become teachers in their turn. On the conclusion of the course of training, these young men dispersed through the Province, and, settling in the villages, did much to bring education home to the ignorant peasantry. Each teacher collected as much as he could in money and rice from the villagers who sent their children to his school, and received a small weekly stipend from Government so long as he discharged his duty properly. A considerable number of schools of this sort were gradually opened, and no measure was more successful in breaking down the baneful influences of caste and in popularizing education.

PROGRESS OF EDUCATION.

In Balasore the number of schools recognized by Government rose from 2 in 1856-57 to 28 in 1870-71, and the number of pupils from 99 to 1,252. Between 1871 and 1885 a still more remarkable development took place. Sir George Campbell's scheme of educational reform, which extended the grant-in-aid rules to hitherto unaided schools, came into operation in 1872, and many indigenous institutions being thus brought under the departmental system, the number of inspected schools further increased by 1875 to 217 with an attendance of 5,972 pupils. The advance of education during the next decade was rapid and sustained, and in 1885 some 37,707 pupils were under instruction in 2,305 public institutions. The number of schools was thus 82 times, and that of scholars 30 times as great as in 1871. This extraordinary rate of progress has not been kept up; in the ten years ending in 1895 the work was hindered by failure of the crops in several years, and the number of schools fell to 2,156 and the attendance to 35,827; and the last ten years have witnessed a similar falling off in the number of schools. These numbered 1,753 on the 31st March 1906, but on the other hand there was a considerable increase in the number of pupils, which rose to 37,687; and besides these, there are 72 schools, with 644 pupils,

which do not conform to any departmental standard and are outside the Education Department system. Thus during the past decade, the public institutions in the district have decreased by 403, but they have received an accession of 1,860 pupils; and the period has thus been one of consolidation rather than expansion.

Even so, however, the number of children is practically the same as in 1885; and the number of scholars studying in Primary schools has actually decreased during these 20 years—a result which is attributed to several causes. At first the Education Department had to deal with a portion of the population living in the more populous and accessible parts of the district, which was moreover well-to-do and alive to the value of education; and in these circumstances progress was comparatively easy. There is now a much more difficult problem to be faced, as the benefits of education have to be conveyed to the poorer peasants and low castes, who have for generations been content to live in ignorance and are indifferent to scholastic instruction, while the efforts of the educated classes are more readily directed to English than vernacular education.

GENERAL STATISTICS.

At the census of 1901 it was found that 7·8 per cent. of the population (15·7 males and 0·4 females) could read and write; and the educational returns for 1905-06 show that there are 35·7 children at school to every thousand of the population, that there is one school to every 1·1 square mile and to every 2·34 villages, and that the proportion of boys under instruction to boys of school-going age is 40·1 per cent.

The inspecting staff of the district consists of a Deputy Inspector of Schools, 6 Sub-Inspectors and 21 Inspecting Pandits, all of whom are subordinate to the Inspector of Schools, Orissa Division.

SECONDARY EDUCATION.

High English Schools.

There are no colleges in the district. The number of High English schools, *i.e.*, schools teaching up to the Entrance Examination of the Calcutta University, rose from one in 1870-71 to 3 in 1883-84, and finally to 4 in 1905-06; during the same three periods the number of scholars attending them increased from 129 to 344 and 531 respectively. Of these four schools, two, viz., the Balasore Zilā School and the Baptist Mission High School, are in the town of Balasore; the third is at the headquarters station of the outlying subdivision of Bhadrakh, while the fourth is at Lakshannāth, a village in the north of the district. A considerable proportion of the boys reading in these schools are the sons of Bengali immigrants, Government servants and professional men earning their livelihood in the district. The Zilā

school is maintained by Government, while the rest are aided by it under the grant-in-aid rules. The annual cost of educating each pupil is Rs. 32-6, the cost to public funds being Rs., 6-5. The total number of candidates sent up to the Entrance examination of 1906 was 20, of whom 6 only were successful. The principal change recently introduced in the curriculum of these schools is that in the lower classes, which were formerly conducted on what is called the English basis, the vernacular, Oriyā or Bengali, has now been made the medium of instruction, and that candidates for the Middle English Scholarship examination are now being selected from the 5th class.

Middle English schools. The number of Middle English schools teaching up to the Middle Scholarship examination, in which English forms part of the recognized course of studies, increased from 2 in 1872-73 to 4 in 1884-85 and to 11 in 1905-06. Of these 11 schools, three in the town of Balasore are aided by the Education Department, 7 are aided by the District Board, while one is an unaided institution.

Middle Vernacular schools. The third class of secondary schools consists of the Middle Vernacular schools, which teach up to the Middle Scholarship, but in which the vernacular is the only recognized course of studies. The number of schools of this class rose from 10 in 1872-73 to 14 in 1883-84, and finally to 15 in 1905-06; of these 15 schools, 2 at Bastā and Gujidaradā are managed by the District Board, 11 are aided by it, and 2 are unaided. These schools are no longer popular, as the people generally attach but small value to a purely vernacular education.

PRIMARY EDUCATION. In 1872-73 there were only 3,474 children receiving instruction in 172 Primary schools, but the next decade was one of phenomenal growth, the number of schools increasing to 2,111 in 1883-84, and the number of pupils to 32,915. On the 31st March 1906 there were 1,571 primary institutions in the district, at which 31,542 pupils were under instruction; of these, 30,583 were Hindus, 629 were Muhammadans, 42 were native Christians, and 288 were children of aboriginal descent, such as Santāls, Bhuiyās and Kols, for whom 8 schools have been opened. The cost of educating each pupil is Rs. 2-12 per annum, of which no share is borne by the State. The slight decrease in the total number of schools noticeable during the first decade and the considerable decrease which has occurred during the last of the decades are attributed to the disappearance of ephemeral schools under the pressure of competition; small and inefficient institutions have closed their doors, and the pupils have transferred themselves in greatly increasing numbers to larger and more efficient schools

Those which have survived have been given greater stability by the new system of grants-in-aid, under which they receive small quarterly grants supplemented by further allowances at the close of the year; the system of payment by results, which was previously in vogue, has been abolished, and the payments are now dependent on the general condition of the school, as ascertained by inspections *in situ*.

SPECIAL SCHOOLS. The number of special schools increased from 1 in 1870-71 to 24 in 1905-06 and the number of students from 30 to 438; they include all the institutions at which instruction of a special kind is given, such as training and technical schools and Sanskrit *tols*. There are in all 4 training schools, 3 for masters and 1 for school mistresses, in the district. Of the first three schools, one at Balasore is a second grade *guru* training school, which is maintained by Government and prepares Assistant Pandits of Middle schools and Head Pandits of Upper Primary schools, while the other two at Astāpur and Dolasāhi, which are also managed by the Department, are third grade or subdivisional *guru* training schools, at which Primary school teachers are trained. Female teachers receive instruction at a training class for mistresses, established by the Baptist Mission in connection with the Middle Vernacular school at Sāntipur, which is aided from Provincial revenues.

In 1895-96 the number of technical and industrial schools in the district was only one, viz., that at Alālpur, which was attended by 21 pupils. By 1906 a second had been opened under missionary management at Sāntipur, and on the 31st March 1906 the total number of pupils attending these institutions was 93. Weaving with the aid of ordinary and fly-shuttle looms, sewing, carpentry, cane-work and gardening are the chief subjects taught in these schools. The school at Sāntipur is doing good work among the aboriginals of the locality.

In 1895-96 there were only 9 Sanskrit *tols* with a total attendance of 146 pupils, but during the next 10 years, *i.e.*, on the 31st March 1906 the *tols* had increased to 18 and the number of pupils to 293. Twelve of these institutions are aided and the rest are unaided. Among the most successful may be mentioned the Srīrām Chandra *Tol* at Balasore.

EDUCATION OF WOMEN. In 1870-71 there were 139 girls receiving instruction, and only 4 schools had been opened; 128 girls' schools have now been established, and the number of pupils has risen to 3,884. Of these schools, three, one at the district headquarters, one at Jaleswar and one at Sāntipur, which are all under the management of the Baptist Mission, teach up to the Middle Vernacular

standard, 3 are Upper Primary and 122 are Lower Primary schools. These Lower Primary schools include 16 zanāna classes taught by peripatetic Christian teachers, working under the superintendence of missionary ladies, who instruct 252 *pardanashin* Hindu ladies in their homes. There are also two Kindergarten girls' schools, one in the town of Balasore and the other at Sāntipur, which are working very satisfactorily.

The most noticeable feature of female education in the district is that, owing to the increased popularity of co-education, as many as 3,791 girls (which is almost equal to the number receiving instruction in girls' schools) attend boys' schools; and in this respect Balasore occupies perhaps the highest position among Bengal districts. Special measures have recently been adopted for encouraging female education, such as the establishment of Model Primary schools for girls both by Government and by the District Board, the employment of female teachers in greater numbers, and the appointment of peripatetic *darzis* and sewing mistresses to teach sewing in girls' schools. Notwithstanding all these efforts, the progress of female education is hardly equal to that of the male population, and female education is still very backward. Considering, however, how intense is the orthodoxy of the Oriyā, the advance has been on the whole very great; and in this connection the following remarks may be quoted from the Government Resolution on the General Administration Report of the Orissa Division for the quinquennial period 1900-01 to 1904-05:—"The Lieutenant-Governor is gratified to note that remarkable progress has been made in education among girls during recent years. This has been particularly marked in Balasore. At the close of the last quinquennium the number of girls under instruction in that district was given as 2,005. In 1904-05 the number had risen to 7,462, or by almost 350 per cent."

CHAPTER XV.

GAZETTEER.

Arari.—*See* Chāndbāli.

Balarāmgarhi.—Village in the headquarters subdivision, situated 9 miles east of Balasore near the mouth of the Burābalang. The village formerly contained an English cloth factory, which was attacked by a force of Marāthā horse in 1748, but the latter were repulsed by the levies of the Nawāb. Writing in 1822, Stirling refers to the place as follows:—"The English had a fine country house surrounded with gardens at a place called Balrāmgerhi, near the sea, the remains of which may still be seen, and will always be viewed with interest from its having afforded a temporary shelter to several of the Company's servants, when Calcutta was captured by the armies of Seraj ud Dowlah, in 1756 A. D." The village was destroyed by the cyclone of 1831 and has never since regained its prosperity.

Balasore.—The principal town and administrative headquarters of the district, situated in 21° 30′ N. and 85° 56′ E., on the right bank of the Burābalang river, 18 miles from its mouth, though only 7 miles in a direct line from the sea. Popular tradition ascribes the derivation of the name to Mahādeo Baneswar, whose temple still stands in old Balasore. The legend runs that Baneswar was a demon living in the Dwāpara Juga, the third of the Hindu ages, who dwelt in the portion of the town now known as Sunahat, a name (*sonita* or bloody) which recalls the fight between Baneswar's men and his daughter's lover Pradyumna, the son of Krishna, who came to steal her. This demon, it is said, established and named after himself the shrine of Baneswar, and it was his custom every morning to repair to this and to four other temples, Gargareswar at Remunā, Khajureswar near Shergarh, Bakreswar in the village of Bankeswar and Mani Nageswar in Bardhanpur; after having worshipped at each shrine and thus accomplished a journey of 40 miles, he would return to his palace at midday. The credulous still point to two tanks as marking the site of this palace and to the remains of the moat round the dwelling of his daughter Usā, whose name again

still survives in that of the village Usāmerha or more properly Usāberh, the dwelling place of Usā.

The name Balasore has been explained as being a corruption of Baleswar, *i.e.*, the young lord Krishna, or of Baneswar, meaning the lord of the forest; but it seems more probable that it is a corruption of Banāsura, the forest demon. It is noticeable that the four images connected with the legend face westwards, while other Hindu images face eastwards, and it is probable that the name dates back to a time when the country was under forest and aboriginal demon worship prevailed.

History.

Balasore does not come into prominence till after the Muhammadan conquest, when a number of the soldiers of Kālā Pahār settled down at Kasbā, now a suburb of the town. Its rise as a commercial town does not date further back than the beginning of the 17th century, when the fine muslins and cotton fabrics woven by its weavers began to attract attention. It was at this time a favourite resort of the Mughal Governor Mīr Taki Khān, who built the masonry tank and reservoir and the mosque and gardens known as Kadam Rasūl. Taki Khān is still remembered at Balasore, where his character for piety stands high. A curious legend is current that his devotions used to be disturbed by the clashing of cymbals which accompanied the worship of a Vaishnava, Nanda Gosāin, whose temple is in Malikāspur, a suburb of the town. Taki Khān, accordingly, prohibited the noise, but the same evening, when the *naubat* or beating of drums at sunset was to take place, none of the drums would sound; and this state of things continued till the prohibition was withdrawn, when the drums again sounded as usual.

In 1740 Murshid Kulī Khān, the Governor of Orissa, rebelled against Alī Vardi Khān, and the two armies met at a place near Balasore. Mr. Beames has identified the battle-field with a place a mile north of the Civil Station where a long ridge of high land slopes down into the marshes between the Nuniājori and Burābalang rivers near the villages of Haripur and Dohoparā. The river surrounds this land on 3 sides, and it was thus admirably suited for a camp of defence; but this advantage was recklessly thrown away by the son-in-law of the rebellious Governor, who rashly advanced to meet the Nawāb and was completely defeated by him. A place a little to the south of this camp, on the high land now occupied by the station, was subsequently the scene of a battle between Alī Vardi Khān and the Marāthās. In 1751 Balasore was given up to the latter.

In those days the town consisted principally of the bazars which had grown up round the English and Dutch settlements

and of the suburbs lying along the river, then as now chiefly inhabited by Muhammadans, such as Kasbā, Muhammadpur and Nurpur. It was the headquarters of the Marāthā officers called *Faujdārs*, and various parts of the town have names recalling their residence in it. The village of Bhāskarganj was so called after the *Faujdār* Bhāskar Pandit (*circa* 1760); Lāla Kishor Rai is said to have founded the Lāla Bazar near Bārabāti and to have built a Bāraduāri or twelve-doored palace near that place; and Motīganj, now the centre of the town and the principal market-place, was founded by Motīrām (1785-90), while the last Marāthā *Faujdār* Mayūrā Pandit lived on the site where the present Jagannāth temple stands. The rest of the town was covered with jungle and scrub, and the main road was that to Jagannāth, which ran through the town past the Gargariā tank to Phulwār Ghāt.

The town was finally captured by the British in 1803 during the Marāthā war. A force of about 1,000 men set sail from Calcutta and landed at Jāmpadā near Gabgāon, a village adjoining old Balasore on the east and 3 miles below the present town. They advanced along the river and were not opposed by the Marāthā horse till they were close to Bāliāghāt just below Bārabāti. Here there was a short skirmish with a body of Marāthā horse, and the British rushing forward attacked the Marāthā fort, which stood on the site of the old salt *golā*, and soon took possession of it. The Marāthās made but a faint resistance, and quickly evacuated the place, which the British quietly occupied.

European settlements.

The chief historical interest of Balasore, however, lies in the fact that it contained some of the earliest European settlements established in Bengal. As stated in Chapter II, the first English factory was established there by Ralph Cartwright in 1633 in response to an invitation from Mīr Kāsim, who is described as being "Governor of a town called Bollasorye, a sea-town where shipping was built,"—"a great sea-town," as it is called elsewhere in Bruton's account, "whereto much shipping belonged and many ships and other vessels built." The English, quick to see the necessity of a strong position, made their settlement on a long high ridge with the swampy Nuniājori winding at its foot and the Burābalang beyond; the site, which was called Bārabāti, because it extended over 12 *bātis* (a *bāti* is equivalent to 20 *bighas*), is at present the principal quarter of the town and the residence of some of its wealthiest merchants. The factory itself was protected on one side by the river and on the other three sides by moats; and a native village, inhabited by the artisans and weavers who worked for the Company, soon sprung up round it.

East of it stood the old town of Balasore, stretching along the southern bank of the Burābalang up to a promontory known as the Point of Sand, on which the Mughals had erected a fort and batteries; these commanded the river for miles and protected the shipping in the dry docks made of mud on the southern bank of the river. It was this fort which was stormed by the English sailors under Charnock in 1687, when the whole town was sacked and plundered, the King's custom-house destroyed and the shipping burnt in the dock. Next year again an English force under Heath captured the town, and the Point of Sand, where the fortifications had been greatly strengthened, was once more carried by storm; the Mughal Governor then abandoned the new town, which contained his own palace, and after burning the English factory, retreated up country, carrying off with him two factors, whom he had made prisoners. The factory was reoccupied in 1691, but the prosperity of the port now began to be affected by the Burābalang silting up at its mouth, while commerce suffered from the Marāthā raids. When the English took Balasore in 1803, the factory was in ruins; and the only traces of it now existing are the old cemetery and a dilapidated two-storied building formerly used as the *kachahri* and now occupied as a native residence.

Of the Portuguese settlement no vestige remains. Stirling says that in his time the only remains of their settlement consisted of a small Roman Catholic Chapel having a wooden cross over the principal doorway; but this has now disappeared.

The Dutch settlement was less advantageously situated than that of the English, as the latter commanded the river and a convenient careening creek, and also had better means of access to the native town; while the Dutch settlement lay behind it and was cut off from the river and town by Bārabāti. The position was, however, a strong one, defended by natural moats and connected by a creek with the river. From the early records it appears that the Dutch acquired a plot of land at Balasore from Mutakid Khān, who was appointed Nawāb in 1645, but the first mention of them does not occur till 1664, when they had a dispute with the English about their boundaries, which was settled by the Nawāb Shaistā Khān. This settlement, which is still known as Hollandais Shahi or Ulan Shahi lingered on till 1825, when it was ceded to the British; its area is 7 acres, and the moat round the old factory, known as Ulan Nullah, and a graveyard containing two old monuments still mark its site.

The Danish factory was also fortified by a natural moat, which connected it with the river and defended it from land

attacks, and on the north there was a small dock for shipping. It was further up the creek, however, than the Dutch factory and was not so conveniently situated, being at a greater distance from the town. The land held by the Danes, which is 7 acres in area and is still known as the Dināmārdānga, was ceded to the British in 1846.

The French settlement, which is on the outskirts of the town, was never ceded and still remains the territory of that nation. Much of the land, which is still called Farāshdānga, has been washed away by the river, and the area is now only 38 acres. It is under the authority of the Administrator of Chandernagore, but is leased out annually by public auction. The existence of this small strip of French territory has at different times been a fruitful source of trouble to the authorities. It was at one time habitually used for the disposal of stolen property, and it was a centre for the smuggling of opium and other contraband articles; in 1883 it gave rise to a case in which the lessee was charged with kidnapping a man out of British territory.

The port. The prosperity of the port began to decline when the Gangetic valley became the centre of British trade, and Calcutta grew into the chief entrepôt of commerce. The silting up of the river, also, aided its downfall; and as early as 1708, an English traveller, Captain Hamilton, found the river blocked by "a dangerous bar, sufficiently well known by the many wrecks and losses made by it." During the next century, the river and the sea threw up several miles of new land; and the town, which in 1708 was only four miles, as the crow flies, from the shore, is now seven. It still remained, however, the only port of which Orissa could boast, and though trade stagnated after the abandonment of the old settlement, it continued for some time to be a busy centre of the coasting trade. All the sloops plying along the Bay were built there in dry docks of mud, but the abandonment by Government of its monopoly of the salt trade and manufacture dealt a serious blow to its prosperity, and in 1876 the number of sloops belonging to the port had fallen to 79.

The development of False Point and Chāndbāli and the advent of the railway have still further diminished the importance of the port, which is now fast declining, as will be apparent from the following remarks recorded in the inspection report on the port for 1904-05. "The railway practically monopolizes all the export trade of the port. This year no coasting or foreign trade vessel has called for cargo, though 40,000 bags of rice were stacked waiting the arrival of bottoms for their conveyance to Colombo and Mauritius. As there is no probability of a vessel calling for this

rice, it is being sent to Calcutta by rail. Balasore has no cargo-boats of its own now, and when rice has to be shipped, the shippers have to bring boats from Cuttack, if they can be spared, which is seldom, as the loading of steamers at False Point keeps them fully engaged. The absence of boats is undoubtedly assisting to kill the sea trade of the port and driving it to the railway."

Though it includes an extensive bazar, the town is in reality little more than a collection of hamlets, the area included in municipal limits being 5 square miles distributed among 28 villages. It has developed considerably since the time when Stirling described it as "a large straggling town in an extremely unfavourable situation, on a low dreary plain deformed by numerous unsightly ridges and ant hills, near the muddy banks of the Burābalang." Its improved appearance may be gathered from the following account of a former Collector:—"When arriving at Balasore, the first thing that strikes one is the grand capacity there is for drainage. Going to the Civil Station is a constant move upwards, and when you reach the station, it is unlike any other in the Lower Provinces with which I am acquainted. There is a brightness and a European air about the place unlike most Indian stations. In the first place, Balasore is a perfect paradise to a gardener: roses, pansies, and every variety of flower seem to thrive, and to every house is attached a well-kept flower garden. In driving up to the Collector's house, therefore, one passes through a well drained clean bazar, and past one or two pretty compounds filled with every variety of flowers. A farther acquaintance with the place does not tend to remove the favourable impression conveyed at first sight."*

The town.

The town is the head-quarters of the district, and the administrative staff includes a District Magistrate and Collector with three Deputy Magistrates, an Executive Engineer, a District Superintendent of Police, a Civil Surgeon, who is also Health Officer of the town, a Munsif, three benches of Honorary Magistrates and a Special Sub-Registrar. A proof range has been established at Chandīpur near the mouth of the Burābalang, and two Artillery Officers and a staff of Conductors and Sergeants are stationed at Balasore in connection with it. The town contains a jail, hospital, charitable dispensary, a Roman Catholic Mission with a school and orphanage, and a settlement of American Free Will Baptists. The jail has accommodation for 163 prisoners, who are employed on coir-pounding, oil-pressing, weaving of coarse cloths and carpets, and cane and bamboo work. The chief

* Cameos of Indian Districts, Calcutta Review, Vol. LXXXIX, 1889.

educational institutions are the Government High school and a High school maintained by the American Free Baptist Mission. Just outside municipal limits to the west are the quarters of a District and Assistant Railway Engineer together with the new station buildings. The railway bridge over the Burābalang, which was opened in 1900, is an imposing structure, though in size it does not compare with those over the Brāhmanī and Mahānadī in Cuttack; it is the only bridge in Orissa constructed in tidal waters.

The town is modern and contains few buildings of any antiquarian interest. The oldest of the Hindu temples are those of Baneswar and Jhāreswar, where a large gathering takes place on Sivarātri day in February. The Jama Masjid is said to have been built in the reign of Aurangzeb, and the Kadam Rasūl mosque was, as already stated, built by Mīr Taki Khān (1725-35) and contains his tomb. It is so named because a stone with a footprint, said to be that of Muhammad, is let into one of the walls. A stone bridge known as the Marāthā bridge on the 2nd mile of the Gopīnāth Mandir road, over which pilgrims visiting the Mahādeo Gargareswar temple pass, is believed to have been built by the early Hindu rulers of Orissa.

Among the most interesting remains in the town are the old European cemeteries. The oldest monument is one in the Bārabāti cemetery, erected in 1684 to the memory of the wife and son of Wilshaw, the captain of the Resolution, which sailed from England in 1682 with the Defence carrying Hedges, the new Governor of the Company's settlements; in 1688 it formed one of a small English fleet under Heath, which took two French ships in the Balasore roads. The same cemetery contains several other tombs of the 18th century and a curious pillar with a flag marked H. S. In the Ulan Shahi quarter is a brick pyramid erected in memory of Burgraaf Van Sevenhuisen in 1696, and in the Old Cemetery is the tomb of the wife of Kelsall, one of the earliest Residents of Balasore, who died here in 1751. Of a later date but scarcely less interesting is the monument erected in 1886 to the memory of Sir Henry Ricketts, one of the first and ablest Collectors of Balasore, with an inscription recording the fact that he served 12 years in Orissa and that "he never forgot Balasor nor the Ooreas."

The population is 20,880, of whom 16,671 are Hindus, 3,688 are Muhammadans and 510 are Christians. The residents include some of the leading zamīndārs of the district and a considerable trading community, the importance and wealth of which are rapidly on the increase. Some of the merchants are Oriyās and Bengalis, but the majority are Musalmāns, Mārwāris and men of Bombay;

among the local traders Telis are acquiring considerable local influence as large money-lenders.

The two daily markets are entitled to some notice. The more important is that in the centre of the town, belonging to the zamīndārs of the Mandal family, which contains some brick buildings occupied by fish and vegetable sellers. Here vegetables from Remunā and the villages near the town, sea-fish from Chandīpur on the coast, and fruit of various kinds, including pineapples, guavas, plantains and a species of orange from the Garhjāts, are brought for sale daily; and at the bi-weekly market there is a trade in brass and bell-metal ornaments and utensils, and in cloth, which is largely purchased by Santāli women from the Garhjāts. At the approach of the rains Chamārs bring umbrellas, hats and *pakhiās* (coverings for the head and back) made of palm-leaf and bamboo. This market is under the control of the Municipality. The other market is situated on the Trunk Road and was constituted as a *sarai* for travellers. Provisions are the principal commodities sold in this bazar, which is let out annually by the Municipality. It contains lodgings for travellers and suitors in the courts, but with the advent of the railway its importance as a *sarai* for travellers is declining.

The climate of the town is good; and with the exception of outbreaks of cholera before and after the rains, and of malarial fever in September, October and November, there is little sickness.

Balasore Subdivision.—Headquarters subdivision of the district, lying between 21° 4′ and 21° 57′ N., and between 86° 21′ and 87° 29′ E., with an area of 1,155 square miles. Its population was 592,544 in 1901, as compared with 546,893 in 1891, the density being 513 persons to the square mile. It contains one town, Balasore, its headquarters (population 20,880), and 2,112 villages. After Balasore, Bāliāpāl is the chief centre of trade. The subdivision consists of a narrow strip of country shut in by the Bay of Bengal on the east, and by the hills of the Tributary States of Mayūrbhanj and Nīlgiri on the west, and bounded by the subdivision of Bhadrakh on the south and the district of Midnapore on the north. The Orissa Trunk Road, also called the Jagannāth road, runs almost parallel to the western boundary, together with the Bengal-Nāgpur Railway, which runs side by side with the road and crosses it here and there. On the east is the Coast Canal fed by tidal waters running parallel with the coast line. The soil is alluvial, but on the west the land is higher, and there is a reddish rocky soil interspersed with patches of jungle and young *sāl* trees, which are haunted by bears, especially near Bastā. On the east

there are sand ridges bordering the sea with small tracts of jungle here and there, which are the habitat of deer, bears and leopards. The remainder of the subdivision is a level plain of arable land admirably suitable for paddy cultivation. The three principal rivers are the Subarnarekhā on the north, the Burābalang in the centre, and the Kānsbāns between Soro and Mārkunā. The first, which rises in Chotā Nāgpur, is tidal up to 15 miles from its mouth, and is liable to floods which destroy the crops within a distance of 4 to 12 miles from either bank. The Burābalang rises in the hills of Mayūrbhanj and runs from east to west to the Bay of Bengal in a winding course, the town of Balasore being situated on its banks at a distance of 7 miles from its mouth, as the crow flies. The last river is the Kānsbāns, formed by the confluence of a number of small hill streams. It drains a large tract, but its floods seldom cause any serious damage. All these rivers are very shallow and are fordable for about 8 months in the year, except in the lower reaches near the sea.

Bāliāpāl.—Village in the north-east of the headquarters subdivision, Bengal, situated on the Subarnarekhā river in 21° 39′ N. and 87° 17′ E. It contains a police station, inspection bungalow and dispensary, and is a considerable centre of trade. At the neighbouring village of Jāmkundā the fourth range of the Coast Canal leaves the Subarnarekhā. The village, which contains a canal inspection bungalow and a large lock, is the headquarters of an old family of Oriyā zamīndārs known as the Jāmkundā Bhuiyās, one of whose ancestors is said to have been a celebrated pirate; there is also a curious tradition that the head of the family is certain to die after the birth of a son. The estate, which extends over 21 square miles, has thrice been taken over by the Court of Wards.

At Karatsāl, 7 miles to the east, there are the remains of an old fortress, now overgrown with jungle, attributed to a chief called Karat.

Bastā.—Village in the headquarters subdivision situated on the Grand Trunk Road, 18 miles north of Balasore and 15 miles west of Bāliāpāl. It contains a police station, inspection bungalow and a station on the Bengal-Nāgpur Railway. Near the railway station in a part of the village known as Rājnagar or Nagar are the remains of a building said to have been the residence of a Marāthā chief. The village also contains the tomb of one of Kālā Pahār's captains, Shāh Husaini Shahīd, who fell here during the Muhammadan invasion.

Bhadrakh.—Headquarters town of the subdivision of the same name, situated in 21° 3′ N. and 86° 31′ E., on the bank

of the Sālandī at the 43rd mile of the Trunk Road below Balasore. Population (1901) 18,518. The town derives its name from the goddess Bhadrakālī, whose temple stands near the river. It consists of a group of hamlets covering about 3 square miles, and is divided into two quarters, the new bazar (Nayābazar) on the right bank of the Sālandī and the old bazar (Purānābazar) on the left bank. The former is situated near the Trunk Road and contains numerous lodging-houses for travellers, suitors in the courts and clerks in Government employ. Provisions are the chief commodities sold in this bazar. The real centre of trade is the Purānābazar, where the Muhammadan element is strongest. The *mahājans*, zamīndārs and merchants reside here, and there are stores for the sale of Liverpool salt, Madras salt and petroleum. The other principal articles of commerce are rice, kerosene oil, cotton and hides. Rice is bought up in large quantities by Bombay merchants either from the local rice dealers or through agents, who visit the smaller markets in the neighbourhood. In addition to the regular stores and shops, there are two markets held weekly on Wednesdays and Saturdays. The Wednesday or Yusufpur market is the most important in the district, and large sales of cattle, timber and fuel take place at it.

The town contains the usual subdivisional offices, a Munsifi, a subjail with accommodation for 14 prisoners, and a dispensary with 8 beds for male and 4 beds for female patients. It is partially protected from the floods of the Sālandī by three small embankments on its right bank, but flood water finding its way through the unembanked part enters the town through a causeway in the Orissa Trunk Road. A project is being considered for extending the right embankment round the civil station. The question of making an embankment on the left bank of the Sālandī below the Trunk Road has also been considered, but it seems likely that by restricting the river channel the right bank would be endangered.

The population is 18,518 and includes a considerable proportion of Muhammadans. After the invasion of Kālā Pahār a number of his soldiers settled down at Bhadrakh, and later in the time of the Afghān and Mughal rule their numbers were increased by a fresh influx of Muhammadans, who formed a large colony with a *Kāzī* to administer Muhammadan law. In later times it contained an English factory subordinate to that at Balasore, of which no trace now remains.

There are few buildings of any interest. A large gathering takes place at the temple of Kālī on the first day of Asārh every

year, the fair lasting 3 days. Rai Lakshmaniya, the last of the Sena rulers of Bengal, is said to have taken shelter here during his flight to Jagannāth after the capture of Nadiā by the son of Bakhtiyār Khiljī in 1195. The temple of Sāinthiā in the adjoining village of that name contains a strip of the bedding of Chaitanya, the reformer of Vaishnavism, who is said to have left it by the side of the Trunk Road during his travels in Orissa. It is regarded as a relic of great sanctity by the Vaishnavites.

Though living in the town is dear—there is a proverbial saying that half a seer of fuel costs a pice—the townspeople are prosperous, and it is said that even the beggars have lands. There are many respectable resident Musalmān families, and they are careful to maintain a position and to keep up social observances which distinguish them from the ordinary Muhammadan community in the mofussil. The principal family, known as the Bhadrakh Miāns, is of Afghān or Pathān descent; a curious result of their having lived among Hindus for so many generations is that they have an aversion to eating beef. The climate is considered superior to that of Balasore, but there are severe outbreaks of cholera in the season preceding the rains.

At Pāliābindhā, 6 miles to the east, there is a temple of Beranchi Nārāyan, which is the only place in the district at which the God Brahmā is worshipped. Near the temple is a well, which, it is said, remains dry throughout the year but fills miraculously on the morning of Chaitra Bāruni in March.

Bhadrakh Subdivision.—Southern subdivision of the district, lying between 20° 44′ and 21° 15′ N., and between 86° 16′ and 86° 58′ E., with an area of 930 square miles. Its population was 478,653 in 1901, as compared with 447,782 in 1891, the density being 515 persons to the square mile. It contains one town, Bhadrakh, its headquarters (population 18,518), and 1,246 villages. A large volume of trade passes through Chāndbāli port in the south. The subdivision is a level tract of alluvial soil, with a gradual slope eastwards to the Bay of Bengal; but to the west, where the boundary approaches the hills of Mayūrbhanj and Keonjhar, the land is higher and more undulating. It is watered by a number of deltaic rivers. The Kānsbāns forms the northern boundary of the Bāsudebpur thāna and flows eastward to the sea, like the Gamai, which is practically its lower channel. The Matāi, which drains the area east of Bhadrakh, meets the Coast Canal at Chāribātia and falls into the Dhāmra, which is formed by the junction of the Baitaranī and the Brahmanī. The Sālandī, which has its rise among the forests of

the Mayūrbhanj hills, passes through the town of Bhadrakh and falls into the Baitaranī; and the latter river forms the southern boundary of the subdivision. These three last rivers are tidal in their lower reaches. The Rebo and Kapāli are minor rivers which run a parallel course to the south-east and discharge themselves into the Baitaranī; and the Genguti is a channel issuing from the Baitaranī, which pursues a circuitous course to the north and then joins the Baitaranī again.

Chāndbāli.—Port in the Bhadrakh subdivision, situated on the left bank of the Baitaranī river, 8 miles west of its confluence with the Brāhmanī and 20 miles from its mouth, in 20° 47′ N. and 86° 45′ E. Population (1901) 1,826. It is connected with the interior by the Matāi, the Bhadrakh road and various tidal creeks; and with the sea by the Dhāmra and Baitaranī, the channel of which is marked out with buoys and beacons. The station is situated on a high but narrow sand ridge stretching from east to west for about a mile and a half, and contains a customs house, port office, telegraph and post offices, police station, staging bungalow and a dispensary with 10 beds for males and 8 beds for females. The river frontage is occupied chiefly by warehouses, lodging-houses and the bazar; and there is a second bazar and a flourishing market at the point where the Bhadrakh road diverges. Chāndbāli owes its existence to the enterprise of Captain McNeill, who 35 years ago sailed up the Dhāmra with Mr. Ravenshaw, the Commissioner of Orissa, with the object of discovering a suitable site for a port. Chāndbāli, which was then a small village occupied by a few fishermen's huts, was found to combine the advantages of high position free from all risks of inundation and sufficient depth of water in immediate proximity to the river bank. Captain McNeill obtained a lease for a small area of land by arrangement with the local zamīndār, and subsequently Government, recognizing the advantages of the site, acquired an area of 179 acres, which now forms the Chāndbāli Khās Mahāl. The lands leased by Captain McNeill eventually passed into the hands of the India General Steam Navigation Company and Messrs. McNeill & Co., to whom leases were granted by Government in 1877. The area held by the two companies now amounts to 12 acres, and besides offices and warehouses, contains a flourshing bazar occupying one-third of the area.

Chāndbāli is the most important port in Orissa, though its trade has been diminishing since the opening of the railway. The exports consist mainly of rice, and the chief imports are cotton twist, piece-goods, kerosene oil, salt and gunny-bags.

The value of the exports in 1905-06 was 33½ lakhs and of the imports Rs. 28½ lakhs. The trade in commodities is supplemented by a considerable passenger traffic, and in 1905-06 the steamers of the India General Steam Navigation and Railway Company and the Rivers Steam Navigation Company, which ply thrice a week, brought 41,500 passengers, while 40,800 passengers left the port.

At Arari, 6 miles to the north-west and 1½ mile north of the Baitaranī, there is a temple dedicated to Araraswar Mahādeo, which contains a large image of Siva. It is believed that people bitten by snakes will recover if brought there.

Chandīpur.—Village in the headquarters subdivision, situated in 21° 27′ N. and 87° 2′ E., on the sea-coast about 9 miles east of Balasore and 2 miles from the mouth of the Burābalang river. Population (1901) 627. Formerly an isolated place containing only a few huts, it has come into prominence since 1896, when the Ordnance Proof Department opened a sea range there. The headquarters of the Department and the small arm range are at Balasore, and Chandīpur contains the sea range, magazine and all the instruments necessary for proofs. The proof work, which is mainly carried on in the cold weather, is similar to that practised at Woolwich and at Shoeburyness. It includes big gun proofs, experimental work and the proving of various explosives and projectiles, such as fuses, star shell, shrapnel, lyddite shell and case shot. The sea range, which is bare at low tide, is marked out to 10,000 yards, but is capable of extension up to 20,000 yards. Since the railway has brought Balasore within easy reach of Calcutta, there has been an influx of visitors who come to enjoy the sea breezes at Chandīpur, and the place possesses great possibilities as a health resort. There is an excellent road as far as the Proof Department instrument house, and then an unmetalled road leads to the European houses on the sea-shore.

There is a long level beach, and sea bathing is possible owing to the absence of surf, but is spoilt by the extreme shallowness of the sea for a great distance out. Good riding can be obtained along the shore, as well as on the pasture land in the neighbourhood, and there is room for a fine golf course near the sea. There is no doubt that were capital forthcoming, Chandīpur might easily develop into a fashionable sea-side resort for week-end visitors from Calcutta. Large quantities of excellent fish are caught here, which are carried by coolies to Balasore and thence railed to Calcutta. A branch line of the Bengal-Nāgpur to connect Chandīpur with Balasore has been projected, and it seems likely that, if direct railway communication with Calcutta were

thus established, a large fishing industry would spring up and Chandīpur might develop into a regular sea-side resort.

Dhāmnagar.—Village in the south of the Bhadrakh subdivision, situated 14 miles south-east of Bhadrakh. The name is a corruption of Dharmanagar, a designation given to the village because in the time of the independent Hindu kings of Orissa it contained a great Hindu monastery, presided over by an ascetic who gave alms to pilgrims on the road to Jājpur and Jagannāth. When the Muhammadans invaded Orissa, Kālā Pahār took possession of the monastery and converted it into a *maktab*. When he left Orissa, some of his soldiers settled at Dhāmnagar and formed a small Muhammadan colony. A considerable portion of the population in the village and its neighbourhood is Muhammadan, and there is a *mutwali* there whose duty it is to distribute alms to Muhammadan *fakīrs* and others out of the income of some property granted for that purpose. The village contains a police-station and inspection bungalow.

Garhjāts.—A name commonly given to the Tributary States to the west of Orissa. The word is a hybrid, being the Hindustani word *garh* (a fort), Persianized into a plural *garhjāt*, ignorance of which has led to the use of a further English plural, Garhjāts or Garjāts, which is a double plural like "fortses." This manner of denominating tracts of land from the fortified posts studded over them appears to be very ancient in this part of India. Thus we have in Ptolemy and the Periplus Dosarene or Desarene, apparently representing the Sanskrit *Dasārna*, (*dasanrina*) "having ten forts," which the lists of the Brihat Samhitā show us in this part of India; while the forest tract behind Orissa is called in the grant of an Orissa king *Nava Koti* or the nine forts. Again, we have, in the same region, further in the interior, the Division of Chhattīsgarh or the 36 forts, a name formerly applied to the territories of the Haihaivansi dynasty of Ratanpur, which comprised the bulk of the present districts of Drug, Rāipur and Bilāspur. [*See* Hobson-Jobson by Yule and Burnell.]

Garhpadā.—Village in the headquarters subdivision, situated 15 miles north of Balasore on the borders of Mayūrbhanj. It contains the residence of a respectable family of zamīndārs, the Bhuiyās of Garhpadā, who are said to have in their possession a copper-plate grant of an estate granted to them in 1503 by Rājā Pursottam Deb, the area originally granted being 1,438 *bātis* or 28,160 acres. The village contains the tomb of one of Kālā Pahār's captains, Hitam Khān Shahīd, who fell here in a battle fought by the invading army; and a grant of 138 *bīghas* of rent-free land is enjoyed by the Bhuiyā family on condition that they

keep up his shrine. At Rāmchandrapur, a few miles to the south, there is the tomb of another of Kālā Pahār's commanders, Muhammad Khān Shahīd.

It was here that Mīr Habīb, the treacherous Dīwān of Murshid Kulī Khān, the Mughal Viceroy of Orissa, met his death some years after he invited the Marāthās to invade the Province. He was charged by Jānoji, the Marāthā General, with embezzlement during his occupation of the country in 1751, and was made a prisoner in his camp at Garhpadā. Habīb with a few followers attempted to escape and was cut to pieces by the guard. The place where Habīb's camp was pitched is a small village still known as Habībganj.

Hughlī.—Village in the headquarters subdivision, situated 10½ miles east of Bāliāpāl near the sea in the extreme north-east of the district. It contains a temple dedicated to Chandaneswar Mahādeo, who is believed to have the power of curing diseases. In the hope of effecting a cure, the sick frequent the temple and prostrate themselves for days together before the image, observing a rigorous fast. A large *melā* is held here annually at the *charak* festival in the month of *Chaitra* (April).

Jaleswar (Jellasore).—Village in the north-west of the headquarters subdivision, situated in 21° 49′ N. and 87° 13′E., on the left bank of the Subarnarekhā, 12 miles from its mouth. It lies on the Orissa Trunk Road and contains a police-station, dispensary and a station on the Bengal-Nāgpur Railway. Historically, Jaleswar is one of the most interesting places in the district. It gave its name to one of the *Sarkārs* into which the Mughals divided Orissa, including a large part of Midnapore, and it was for a long time an important frontier fortress. In the neighbourhood of Jaleswar occurred in 1575 the great battle of Mughalmāri (the Mughal slaughter) in which the Afghāns under Dāūd Khān, king of Bengal, met the Mughals under Munim Khān, Akbar's general. The armies met on the north bank of the Subarnarekhā, near the village of Tukaroi at a place running westward for some 6 miles from Jaleswar. The Afghān camp was strongly entrenched, but Dāūd Khān drew out his forces in front of it and offered battle. The numbers were nearly equal, the Afghāns having 200 elephants placed along their line, with which they hoped to break through the squadrons of their opponents and clear a road for their cavalry. Munim Khān, on the other hand, had a number of swivels and small guns, which soon put the elephants to rout and drove them back on their own line. After a hotly contested fight, the Afghāns, in spite of the intrepid charges of their cavalry, were routed; but the Mughals

suffered so severely that they were unable to pursue, and halted 5 days in the field of battle to bury their dead, see to their wounded, and recruit their strength.

In 1592 a second great battle was fought in the neighbourhood on the northern bank of the Subarnarekhā between the Afghāns and the imperial troops under Mān Singh; the former being again defeated, the Mughals took possession of Jaleswar. From this time Jaleswar was held by an imperial garrison, and does not come into prominence till the time of the Marāthā invasions when its exposed position made it constantly liable to attack. There are still 12 *sardārs* with 100 *pāiks* in possession of 2,000 acres of land in the neighbourhood, which were granted rent-free by the Muhammadans on condition that they guarded the southern borders of Midnapore against the Marāthās. Local tradition asserts that one such skirmish took place in the quarter of Jaleswar now known as Patnā-bazar or Kampu-bazar.

There are still the remains of a very large fortress, which is said to have extended over 8 square miles. It was divided into two parts joined by a drawbridge, and was surrounded by ramparts of earth and stone with seven concentric ditches. The latter have been filled up and cultivated, and the earthen ramparts have disappeared, but the stone ramparts are still intact. The buildings inside are all in a dilapidated condition, except one called the Rānī Mahāl. The village also contains an old mosque said to have been built by one of the Muhammadan Nawābs in the 16th century. Jaleswar used to be a trade centre of some importance, and in Hamilton's Hindustan (1822) it is mentioned as one of the three principal places in Midnapore. The English at one time had a factory there, of which no trace is left. The village was formerly situated at a distance of 2 miles from its present position, but the old site was abandoned owing to its unhealthiness.

Karatsāl.—See Bāliāpāl.

Kāupur.—Village in the Bhadrakh subdivision, situated 8 miles north-west of Bhadrakh. Close to the village in the dry sandy bed of the Sālandī there is a hot spring called Debarakund, which is regarded as sacred. At Daisingh, three quarters of a mile to the east, on the Sālandī, there is a huge arrow-shaped rock called Bhīma Kānda, which is believed to have been an arrow-head used by the epic hero Bhīma.

Kupāri.—Village in the Bhadrakh subdivision, situated 42 miles south-west of Balasore and 18 miles south-west of Soro, with which it is connected by a District Board road. The place, which is close to the point where the Tributary States of Mayūrbhanj, Nīlgiri and Keonjhar meet, is interesting not only from its

singular physical appearance, but as being the only place in Northern Orissa, where distinct traces of Buddhism are still observable. It stands in a level plain surrounded on three sides by low rocky hills. The soil is sterile, and in many places consists of nothing but large slabs of laterite rock, as flat and regular as a London street pavement, having, however, the colour and general appearance of rusty iron boiler plates. This formation is not continuous; there occur large spaces where the laterite is covered with more or less depth of earth, and on such spots are rice-fields, tanks and houses, and large mango and *pīpal* trees.

The ruins stand on the north side of the village, the more important and better preserved portion being situated in the very middle of the flat laterite surface, but other parts are found in the softer soil among trees. These ruins exhibit the traces of an ancient Buddhist temple, and *vihāra* or monastery, with a grove intervening. The Buddhist temple appears to have been destroyed and its materials used to erect a Brahmanical temple dedicated to Siva, whose emblems in a later style of art, some in fact comparatively modern, are found in abundance. Later than these supervened the present Vishnu worship, now the prevailing type of Hinduism in Orissa, so that a considerable amount of wilful, and some also accidental displacement and destruction has taken place. The Siva and Vishnu buildings are rude in the extreme, and are composed of stones evidently taken from some earlier fabric, as the architectural design and sculptures are entirely disconnected, a stone with a bold moulding being placed upon a perfectly plain one and *vice versá*, and one edifice in particular being crowned, not by a pinnacle or spire, but by a capital exactly like those of the pillars still remaining *in situ* on the earlier building.

This earlier building consists of a confused mass of laterite hewn stones of very great size, but no outlines can be traced without digging. In what seems to have been the centre is a huge square mass of laterite like an altar, about 4 feet high, and at each corner a small niche, one of which contained an image of Māyādevī, which was removed in 1871. One of the other niches has been removed to a distance of about half a mile, and set up on the edge of a tank, probably for purposes of Brahmanical worship; the other two niches are overgrown with trees, and an ancient tamarind in one, and a still more ancient *pīpal* in the other have twisted their roots and stems in and out of the stones so as to render restoration impossible. This building appears to have been the original Buddhist temple, and the altar probably contained an image of Buddha of gigantic size, the mutilated

remains of which have been set up in the village temple and are now worshipped as Baladeva. From this ruin stretches a grove of trees on a long ridge, evidently formed artificially by heaping earth on the laterite rock to a height of 4 or 5 feet. On the northern edge of the grove is an old square stone well hewn through the rock and lined with huge cut stones. In the middle of the grove is an oblong platform of hewn stone, with the capitals of some large pillars lying on and around it.

Going westwards over a space encumbered by half-buried debris, we come to the best preserved portion of the remains, a long narrow hall with a sort of propylaeum on the eastern side surrounded by pillars, most of which are still standing, though so much battered and worn by rain that their original design is almost untraceable. It can be seen, however, that they were octagonal, with a capital consisting of a double round beaded fillet. To the north of this is a small tank with steps leading down to it, the whole hewn with immense labour through the solid rock to a depth of 6 feet, and always full of water even in the driest seasons. To the west of the hall just mentioned is a scarcely distinguishable small building, whereon are a few fallen pillars and capitals.

The inscription on the back of the image of Māyādevī would refer the building in which it was found to the 10th century A.D., unless, as is highly probable, the image was dedicated after the erection of the temple; the huge size of the stones, some 4 feet long by 2 or 3 feet deep, and the general rudeness of the architecture afford grounds for believing that the date of its construction is much earlier. The grove with its artificial soil and ancient well was probably the garden; and the three buildings themselves were the cells of the *vihāra*, or monastery, for the use of whose inhabitants the tank was apparently dug.

At the foot of the hills close by are the remains of a large fort of mud, and high up on the hill side is a cave temple called that of Bharua Devī, a name probably corrupted from Bhairava, as that of an adjoining cave, Basudi, is probably from Bāsukī. The sculptures and statues which have been brought from them to adorn the village shrine at the foot of the hills are a strange medley, comprising one or two Durgās, a Nrisingha *avatār*, and several minor idols. According to local tradition, Kripāchārya, a Brāhman warrior mentioned in the Mahābhārata, performed a *homa* ceremony here after the defeat of the Kurus. Kupāri is now the chief market of Kilā Ambahatā on the borders of Nīlgiri. [The Ruins at Kupāri, by John Beames, B.C.S., Magistrate of Balasore, J. A. S. B. Vol. xl, Part I, 1871.]

Nangaleswar.—Village in the headquarters subdivision, situated 18 miles north-west of Balasore town. It derives its name from Langleswar, *i.e.*, the god of plough, the legend being that Siva cultivated 1,600 acres of land there, which to the present day is called "Sivaputha." It contains a temple dedicated to Harapārvatī, at which a large religious gathering takes place on Sivarātri day in February. This is said to be the only place in Orissa where the full figures of Siva and his wife are to be seen.

Pāliābindhā.—See Bhadrakh.

Piplī.—Village formerly existing near the mouth of the Subarnarekhā in the north-east of the headquarters subdivision. Piplī was once the most important port on the Orissa coast and contained settlements of the Portuguese and Dutch. The Portuguese settled there in 1599, and for many years it was a centre of their power. Bruton writing in 1683 describes it as "a port-town of the Portugals, where the Portugals are resident;" and it was a great slave mart where the Arakanese pirates brought their prisoners. Bernier (1660) mentions it as the port from which he went in a seven-oared scallop to Ogouli (Hooghly), a journey which took him 9 days. The capture of Hooghly in 1632 and their expulsion from Hijli in 1636 destroyed the power of Portuguese, but even as late as 1723 a Jesuit missionary, Father Laynez, in an account of an episcopal visitation of the Bishop of St. Thomé, mentions it as a place where topassess or Portuguese mercenaries congregated. In the meantime, the Dutch took the opportunity to establish themselves there, and in Hamilton's Hindostan (1820) it is said that they shipped 2,000 tons of salt annually from the port.

The English also appear to have had a settlement at Piplī, though this is disputed, and Wilson in the Early Annals of the English in Bengal says that "the English never had any factory at Piplī except in the imagination of the historians." The fact remains, however, that Captain Alexander Hamilton, writing in the early years of the 18th century, speaks of an English factory as formerly existing at Piplī, whose river had by that time silted up. "Piplī," he says, "formerly was a place of trade, and was honoured with English and Dutch factories. The country produces the same commodities that Ballasore does; at present, it is reduced to beggary by the removal of the English factory, the merchants being all gone." Other authorities agree as to its existence, and in Hamilton's Hindostan we find it stated that the floods of the Subarnarekhā having washed away a great part of the town and formed a

dangerous bar in the river, the English merchants removed to Balasore. In the beginning of the 19th century it was, according to the same authority, still one of the chief places in Midnapore, but the silting up of the Subarnarekhā was fatal to its prosperity. For some time it lingered on as a ruined and silt-locked village, but it has now entirely disappeared.

Of the Portuguese, Dutch and English settlements every vestige and trace have been obliterated, and the remains of even a single building cannot now be traced. Although the inhabitants of the vicinity have heard that the Subarnarekhā was formerly a great port, yet there is no fixed tradition as to its site ; and if they are pressed for an opinion on the subject, some indicate one place, and some another. The most credible account is that near the village of Mānuagar, on the right bank of the river, there formerly existed a great settlement of Firinghīs (Europeans) and Mughals, whose ships used to sail from the sea right up to the spot ; and that the Firinghīs had a cemetery with masonry tombs, but the site of the whole has been washed into the river. The river so often changes its course that to identify the precise spot would be imposssible.

Rāībaniā.—Village in *pargana* Fatehābād in the extreme north of the headquarters subdivision situated 8 miles north of Jaleswar. It contains the ruins of an old fort, of which the remains, moats, ramparts, etc., are still visible. According to local tradition, this fort was held by Birāt Rājā, and the heroes of the Mahābhārata, Yudhisthīra and his brothers, took shelter there during their exile. While they were in the fort, Kīchaka, a general under Birāt, tried to seduce the wife of Yudhisthīra and was killed for his presumption by Yudhisthīra's brother Bhīma. It seems more probable that the fort, which stands just opposite the place where the old Pathān road crosses the Subarnarekhā, was erected by Mukund Deo, the last Hindu king of Orissa, to guard the frontier. It was captured in 1568 by Kālā Pahār, the general of the Muhammadan army which overran Orissa. The fort formerly contained an idol called Kīnchakeswarī, which has been removed to Mayūrbhanj.

Remunā.—Village in the headquarters subdivision situated in 21° 33′ N. and 86° 53′ E., 5 miles west of Balasore. Remunā is an important trade centre, containing one of the largest markets in the north of the district ; and situated as it is near the western border of the district, it attracts a good deal of commerce from the Tributary States. There is a considerable trade in brass utensils, and Balasore draws its supply of vegetables from the neighbourhood. The village contains the tomb of one of Kālā Pahār's

captains, Gulāb Shāh Shahīd, from whom the large bazar of Shāhji Patnā takes its name. There are extensive remains of Muhammadan tombs and buildings, and it is said that Mīr Taki Khān, the Viceroy of Orissa from 1725 to 1735, had a hunting lodge there : there is still a good deal of game in the neighbourhood, and the name Remunā, a corruption of Ramnā, a hunting grove, supports the legend. The village also contains a temple dedicated to Khīrchorā Gopīnāth, an unsightly stone edifice defaced by indecent sculptures. Khīrchorā Gopīnāth is a form of Krishna, and a religious fair is held annually in his honor at the temple in February. The fair lasts for 13 days and is attended by a very large number of pilgrims. The temple contains a rude image of Krishna with limbs scarcely discernible, and the ill-shaped form is explained by a legend that when Rāma and his wife Sita went to the Dandakāranya, she urged him to show her his future shape. Thereupon, he started carving the figure he was to assume thereafter with an arrow, but before he could complete the carving, Sīta fainted and he was obliged to stop. The god is named Khīrchorā, because he left one of a number of plates of *khīr* (rice cooked with milk and sugar) given him as offerings for one of his worshippers who was starving. The temple is said to have been visited by Chaitanya, the great apostle of Vaishnavism, and is frequented by a large number of pilgrims.

Sainthiā.—See Bhadrakh.

Sholampurī.—Village in the extreme south-west of the Bhadrakh subdivision situated opposite Jājpur, from which it is separated by the Baitaranī river. It contains the ruins of an old brick fort, which, according to local tradition, was built by Kapilendra Deva, king of Orissa (1435-1470). Inside the fort are a tomb and the ruins of a temple destroyed by the Muhammadans.

Soro.—Village in the headquarters subdivision situated 20 miles south-west of Balasore. The village is said to derive its name from one Sur Sen, a Marāthā chief who had his headquarters there. It also contained an English factory subordinate to that at Balasore and was surrounded by a moat, which has now been filled up and is partly under cultivation. Soro was once a place of some strategic importance and was the first village in the district occupied by the English force in 1800 after Balasore had been captured. It contains a police station, dispensary and inspection bungalow, as well as a station on the Bengal-Nāgpur Railway.

INDEX.

A.

B.

D.

E.

T.